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## A Tale of Two TODs: Transit Oriented Development on the Westside Light Rail Corridor: An Analysis of Station Area Planning and Development at Orenco and Beaverton Creek

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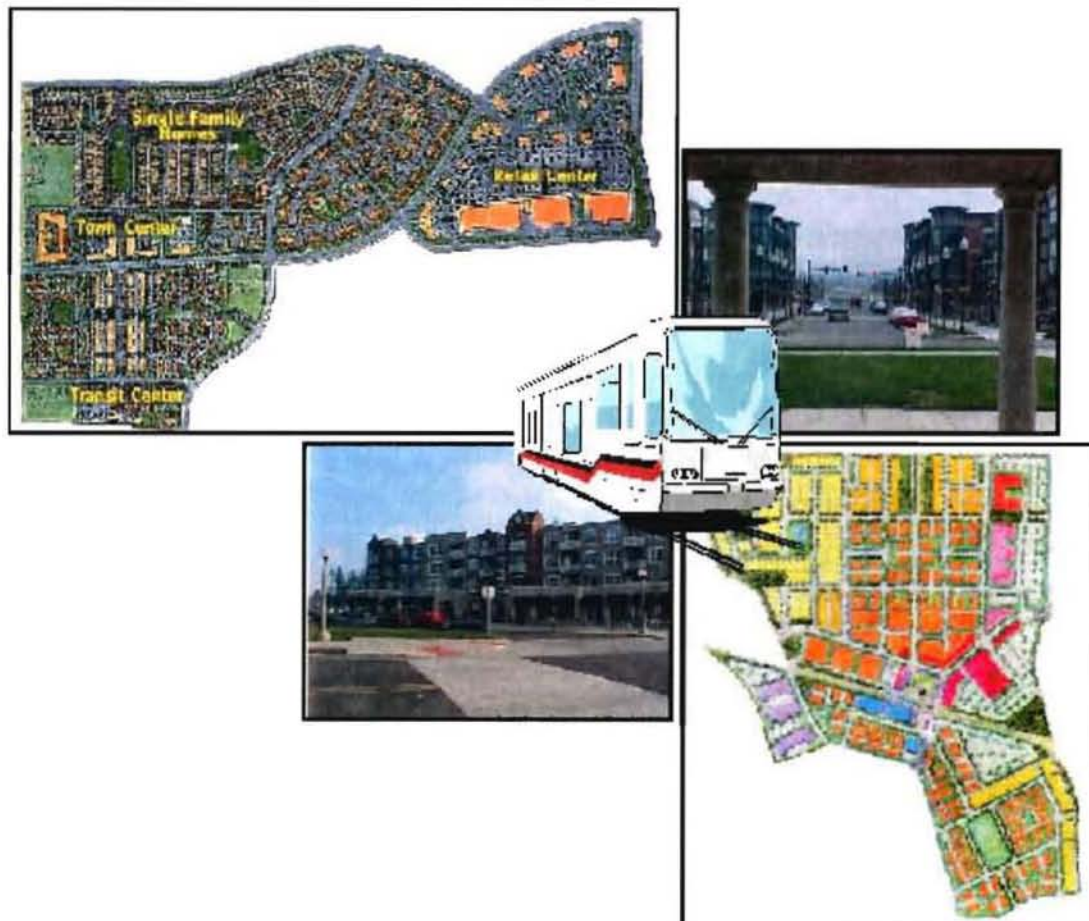
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# A Tale of Two TODs



*Transit Oriented Development on the  
Westside Light Rail Corridor:  
An Analysis of Station Area Planning and  
Development at Orenco and Beaverton Creek*

**March 12, 2000**

*The Planning Workshop, in the Master of Urban and Regional Planning (MURP) program at Portland State University, provides students with professional planning experience. In teams, students develop consulting contracts with clients for planning services that address regional issues and their own personal and professional interests. The Workshop provides experience in planning for constructive social and environmental change, while considering the planner's ethical responsibility to serve the public interest. This document was produced in partial fulfillment of 1999/2000 Workshop course requirements.*

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# Executive Summary

## Project Overview

The Portland metropolitan region is growing rapidly, as are accompanying environmental impacts which threaten livability. An efficient linkage between transportation and land use planning through transit oriented development has been identified as an important tool for managing growth-related problems. Implementation of this linkage is difficult to achieve.

A transit oriented development (TOD) is a compact, mixed-use community within short walking distance of a transit stop. Significant investment has been made in local TODs, particularly within the Westside corridor station areas of the Portland Metro Area Express (MAX) light rail line. While some of these developments have been criticized for not meeting expectations, others have been deemed exemplary of proper station area planning practices.

Two Westside MAX TODs were studied in order to develop suggestions for how local jurisdictions might maximize their potential for encouraging and enabling TOD implementation. Interviews were conducted to supplement research of TOD planning materials and related literature. This document describes the perspectives of various stakeholders involved in the planning and development processes for each TOD, and offers explanations for the discrepancies between what was built and what was originally planned.

Recommendations for future TOD implementation are provided based on this analysis.

## Findings

TOD research and interviews produced the following key findings:

- ◆ Beaverton Creek is seen as not having reached its potential, whereas Orenco has received national attention as a model TOD.
- ◆ The Orenco implementation process was smoother than Beaverton Creek's.
- ◆ There were fewer changes between the planned and built TOD at Orenco than at Beaverton Creek.
- ◆ Property ownership and relationships among implementers were the two key factors contributing to the differing planning processes and results at Beaverton Creek and Orenco.

## Conclusions and Recommendations

Listed below are the key contributors to effective TOD implementation. These factors are locally applicable, and may also be useful to other regions attempting to initiate or improve TOD programs.

- ◆ *Strong lead agency:* As is true for any planning process, clear direction is vital and should be provided by those with the power to enact it. A strong lead agency with sufficient funds, political leverage, and sympathy for/attachment to the TOD cause will facilitate implementation. Well-defined, appropriately-assigned leadership roles can minimize conflict and enable cooperation among stakeholders.
- ◆ *Shared vision among stakeholders:* A unified front of local jurisdictions and regional planners is essential. Developer buy-in is the second step. Successful TOD implementation cannot take place without defining rational, reachable objectives and devising a cooperative strategy for achieving them.
- ◆ *Supportive development regulations:* Appropriate zoning and design codes are required to enable elements of transit-supportive development, e.g., higher density, mixed use elements, pedestrian connectivity, lower parking requirements and good access to public transportation. Development standards must be flexible enough to allow for these TOD elements while maintaining consideration for market conditions and automobile demands.
- ◆ *Public support and incentives:* TODs may require financial support and incentives to provide for their unique characteristics. Transit oriented, mixed-use development is more expensive than more standard construction types, and therefore riskier for developers and lenders. TOD objectives such as increased density and decreased surface parking will be easier to achieve if tax abatements, grant money and other funding options are available to developers. Public ownership of a potential TOD site may be the most effective way of ensuring transit supportive-development.

Broader conclusions were also drawn from this analysis; issues arose which were beyond the scope of this project, but should be investigated further. These main points are listed below.

- ◆ The Portland metro area has a variety of conditions which facilitate TOD implementation, many of which are not present in other regions. Local recommendations have been challenging to apply locally; it is expected that they will be additionally difficult to apply elsewhere.
- ◆ In many TOD projects across the country, the commercial/retail component has been problematic. A way to increase its viability is to provide flex office space to be converted to retail in a phasing process as supportive densities develop. Case studies indicated the importance of retail in terms of creating a functional mixed-use development.
- ◆ More research should be done to determine what role car sharing can play in future TODs. It might be an ideal means to address the TOD goal of increasing transit ridership, while maintaining respect for the automobile's role within the transportation system. Car sharing allows people to use an automobile when their travel requirements demand it, but not be burdened by car ownership when other modes, such as transit, are preferable. Parking demands at TODs could be significantly reduced if even a small percentage of TOD residents participated in a car sharing program. This might alleviate developers' concerns over limited parking ratios..
- ◆ An important area that TODs have failed to adequately address is affordable housing. The high cost of building TODs combined with market realities have limited the housing types available in existing TODs; currently, the majority cater to middle and upper income households. Ways to include more affordable residential units into future TOD projects should be investigated further.
- ◆ More research is required to determine the impact that separating housing and parking costs would have on affordability and development feasibility. Repeatedly

mentioned in stakeholder interviews was the heavy expense associated with the construction of TOD projects. A way these costs might be reduced is through eliminating the requirement that developers provide parking spaces for residential projects. Particularly in the suburbs, developers typically seek to increase parking provisions rather than decrease or eliminate them. However, allowing the market to dictate parking needs rather than forcing developers to meet requirements, might entice them towards TOD projects. By cutting parking out of construction costs, TOD housing units could become more affordable. Parking needs could be served through independent parking structures, with residents determining individually whether to pay for the added costs of parking.

- ◆ Few regions have strong metropolitan planning entities to guide the TOD implementation process. In lieu of an organization like Metro, a private, non-profit TOD advocacy group may be the best resource for seeing TOD projects to fruition. Such organizations could offer skills and expertise, as well as negotiate deals between stakeholders. They could also be involved in assembling financing mechanisms. Further investigation is needed to determine how TOD advocacy groups could be created and funded, and what specific role their specific role in the process should be.
- ◆ Growth related problems such as traffic congestion and sprawling development patterns represent some of our most pressing urban challenges. Because of this reality, transit oriented development will continue to be an important growth management strategy, both in the Portland metropolitan region and across the country. The proliferation of TODs is a worthwhile endeavor.

# Background

## Project Description and Purpose

This project tells the tale of two transit oriented developments (TODs), throughout the initial planning stages to final construction. Specifically, the Orenco and Beaverton Creek station areas are described, compared, and analyzed in terms of compatibility with initial objectives. Research on the planning and development processes included review of planning materials and related background documentation, as well as stakeholder interviews. The stories behind implementation of each TOD provide insight into how to successfully translate transit oriented design theory into on-the-ground manifestations of these concepts.

A primary purpose of this document is to provide Tri-Met and other local agencies with information applicable to preparations for Interstate MAX construction and other light rail extensions. Specifically, this report offers the following:

- Perspectives of developers, lenders and other stakeholders that are not well understood or typically revealed in TOD analysis; and
- Specific, more directly relevant information than has been provided by previous, more general TOD research; a local emphasis with broader implications.

Findings may also be applied in other metropolitan areas looking to Portland as a model for TOD implementation. By adding to the growing pool of knowledge, this project seeks to assist jurisdictions in improving the TOD process and product.<sup>1</sup>

## Regional Context

The Portland metropolitan area is growing rapidly. It is expected that 500,000 new residents will move to the region in the next 20 years<sup>2</sup>. With this population influx comes increased pollution, congestion, sprawl, and loss of open space. In the face of these growth management pressures, local, regional, and statewide objectives have been identified to limit sprawl, preserve farmland and open space, and protect and enhance downtown areas. Examples of supportive legislation and projects/plans include:

- Statewide land use planning goals,
- The regional Urban Growth Boundary (UGB),
- Metro's 2040 Regional Framework Plan,
- The Regional Transportation Plan (RTP), and
- 1000 Friends of Oregon's LUTRAQ project, "Making the Land Use Transportation Air Quality Connection".

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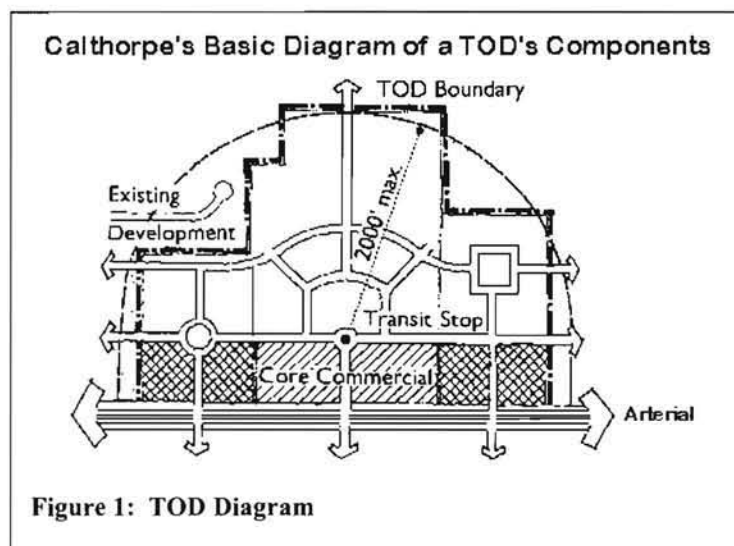
<sup>1</sup> Note: *TOD implementation* is broadly defined throughout the document, to include both station area planning and development phases. The term is meant to capture the comprehensive process.

<sup>2</sup> 2040 Regional Framework Plan, 1997. Metro, pg. 5.



These measures are designed to focus regional growth inward, guiding efficient development patterns that make the most of infill opportunities, and limiting encroachment upon forests and farmland outside the UGB.

## Transit Oriented Development (TOD)



Consistent with these established goals is a relatively recent addition to the growth management toolbox: transit oriented development. As defined by Peter Calthorpe, a leader in designing transit-supportive communities, "a transit oriented development (TOD) is a mixed-use community within an average 2,000-foot walking distance of a transit stop and core commercial area. TODs mix residential, retail, office, open space, and

public uses in a walkable environment, making it convenient for residents and employees to travel by transit, bicycle, foot, or car."<sup>3</sup> Typically TODs are designed with higher densities than standard development.

Inner-city neighborhoods with high densities, mixed uses and convenient transit access have long been in existence, and closely match the TOD definition. More and more, planners are recognizing that this compact, efficient development style should continue to be pursued. It is important to refer back to these earlier models when searching for growth management methods. Proponents of TODs believe they can help mitigate many of the population growth problems facing the region. Transit-supportive development can be a means to limit automobile dependence and increase transit ridership and use of other travel alternatives. A widespread shift in transportation mode choice towards more sustainable options will reduce overall vehicle miles traveled (VMT). The decreased congestion and pollution associated with decreased VMT contributes to regional livability.

Construction of rail transit often presents unique new opportunities to effectively integrate transportation and land use planning, towards TOD implementation.

## Light Rail Transit (LRT) in the Portland Metro Area

The "T" in TOD typically refers to fixed rail transit rather than bus routes. Occasionally major bus corridors are targeted for transit oriented development, but more often light rail transit (LRT) lines are the focus because of their relative permanence. Compared to

<sup>3</sup> Calthorpe, Peter, 1993. The Next American Metropolis: Ecology, Community and the American Dream. Princeton Architectural Press, New York, New York, pg. 56.



variable bus routes, train tracks offer security in terms of planning for development. Throughout the United States train tracks have been removed; there is no guarantee against their *eventual* removal. The significant investment required for their construction, however, lessens the chances for *near-term* removal. Rail line alterations are prohibitively expensive and less likely to occur than bus network changes. Bus routing is an on-going, dynamic, flexible, adaptive process; rail routing is largely a one-time endeavor. Compared to bus corridors, LRT lines, whether firmly established or newly built, are a more permanent and therefore more attractive option for developers seeking to build a transit-reliant project. Additionally, light rail seems to enjoy a more positive public image than bus transit. To an extent, rail has escaped the stigma of public transportation as an undesirable travel mode, relegated to low-income individuals. This may be another factor in developers' preference for siting projects along rail corridors rather than bus routes.

Local TOD activity has occurred primarily along Portland's Metro Area Express (MAX) line. MAX is a 33-mile light rail connection linking the cities of Portland, Gresham, Beaverton and Hillsboro which was built in two phases: The Eastside MAX line was completed in 1986, stretching 15 miles east from downtown; the Westside extension subsequently opened in 1998, adding 18 miles and 20 stations to the system.

Both projects were constructed on time and on budget; both within the federal government's full funding grant agreement. The US Department of Transportation funded 83 percent of the \$214 million Eastside MAX; state and local funds paid the remaining 17 percent. Federal investment came largely through trading in funds for an urban freeway and investing in transit and smaller road projects. For the Westside segment, 73 percent of the \$963.5 million total was paid for by federal funding, with state and local contributions covering the remaining \$259 million. In 1990, Portland area voters approved \$125 million in property tax bonds for local Westside MAX funding by a 74 percent margin. Total new development investment along the LRT line is estimated at \$2.4 billion. Nearly 7,000 housing units are underway along the Westside corridor.<sup>4</sup>

Two additional LRT extensions are in progress. Airport MAX is currently under construction and scheduled for completion in the fall of 2001. If adequate federal funds are appropriated, construction of the Interstate MAX extension could begin in 2001 with completion in 2004.

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<sup>4</sup> From Tri-Met's web site, [www.tri-met.org](http://www.tri-met.org).

## Tri-Met: Policies and Practices

The Tri-County Metropolitan Transportation District, Tri-Met, is the agency responsible for operating and maintaining local transit service. In addition to the LRT line described above, there are 102 bus routes within the tri-county service area. Ridership is at historic heights; as of September 1999, Tri-Met has seen 81 straight months of ridership growth.

In 1993, the Tri-Met board of directors approved a Strategic Plan focusing the agency on the challenge of sustaining livability in the face of a tremendous population boom. Its primary objective is to ensure convenient, accessible and reliable transit service throughout an increasingly urban metropolitan area.

Since the plan's adoption, the metropolitan area has reinforced Tri-Met's mission: "to assure people increased mobility in our growing, compact urban region." As highlighted in Metro's 2040 Plan, efficient and convenient public transportation service is key to protecting regional livability.

Tri-Met has also assumed an important regional role outside the traditional transit arena. Local governments, developers and businesses look to planning staff for advice on pedestrian- and transit-friendly development, as well as other strategies for reducing auto reliance. The importance of a strong connection between transportation and land use planning is articulated in Goal 6 of the Strategic Plan: "Working with public and private partners, assure that a majority of all new housing and jobs within the urban growth boundary are within a convenient five-minute walk of the primary transit network." Effective TOD implementation is vital to achieving this goal.

Over the past seven years, Tri-Met has been very active in promoting transit oriented development throughout the region. Most of the work has been focused in the areas described below.

1. *Station Area Planning* - Tri-Met has been and continues to be involved with the station area planning process for each of the Westside light rail stations. In conjunction with individual jurisdictions, Tri-Met has been active in molding station area ordinances to help implement the kind of development that optimizes the effectiveness of light rail. While the jurisdictions have final say in the adoption of these ordinances, Tri-Met's role is to push back and help ensure that the performance goals of the system are being met.
2. *TOD Joint Development* – Through the development of excess right-of-way, Tri-Met has been involved in creating TOD examples that promote a mixture of uses, pedestrian orientation, and densities/parking ratios that support the success of LRT. In these arrangements, Tri-Met has sold their land for a minimal cost in order to help facilitate a project that the market may not have otherwise produced.
3. *Development Review* – Tri-Met's development review process provides the agency with an opportunity advocate for better community design. Local jurisdictions send development applications to Tri-Met for review; this includes all projects proposed along transit corridors (within a ¼ mile of a bus route or a ½ mile from an LRT

station). Tri-Met responds by providing design recommendations that could help make development projects more pedestrian-friendly and transit-supportive.

4. *TOD Partnership Opportunities* – Public/private partnerships are often essential to increasing the feasibility and transit-supportiveness of TOD projects. To enter into these arrangements, Tri-Met's resources can be applied in a number of ways:
  - ♦ Land – Sometimes portions of right-of-way are sold or leased to landowners to facilitate a development. Tri-Met uses this leverage to require additional design considerations or transit ridership incentives.
  - ♦ Transit incentives – Developers may receive financial incentives for going beyond what is required by city/county code and providing transit-supportive design elements.
  - ♦ Shared parking – Parking agreements can allow for off-peak use of Tri-Met park and ride lots in exchange for design improvements or transit incentives for employees/tenants.
  - ♦ Pedestrian Improvements – Tri-Met funding, when available, can enhance pedestrian environments adjacent to TODs by improving access to stations and bus stops.

## PD4T

Tri-Met's *Planning and Design for Transit Handbook (PD4T)* is exemplary of their efforts to encourage TODs, locally and beyond. Produced in 1995 by Transit Development department staff, PD4T is a follow-up to previous editions; it was originally published in 1979, and first revised in 1993. The new handbook provides practical guidelines for local planners, developers, designers, engineers and community leaders to plan and design projects which are more pedestrian- and transit-supportive. The guidelines can be used to refine local comprehensive land use plans, to design development projects, or to plan and design street improvements which involve bus facilities. PD4T is organized in three sections:

1. Guidelines for Land Use and Transportation Plans. This section provides planners with guidelines for refining long-range land use and transportation plans to be more transit supportive. Its purpose is to assist local jurisdictions in translating Metro's 2040 Growth Concept into local plans. The guidelines in this section can be used to amend comprehensive plans, prepare transportation system plans, or prepare specific development plans for targeted centers and corridors. A detailed process for preparing and implementing specific development plans is also provided.
2. Guidelines for Site and Building Design. Chapter 2 contains guidelines aimed at maximizing the effectiveness of transit and pedestrian related project investments. They address such elements as density, connectivity, building location and setbacks, entrance locations, and site design details. Examples of typical developments illustrate the application of the design guidelines, which are drawn from projects constructed in the Portland region.
3. Guidelines for Design of Bus-Related Facilities. Topics covered in this section include design and location of bus stops, pedestrian amenities, transit priority measures,

and street geometrics. These design standards are intended for use by transportation planners and engineers involved in the planning and design of public rights-of-way.

A fourth chapter, Guidelines for Development near Light Rail, was never funded.

The overall goal of PD4T is to encourage development that allows for increased mobility, particularly via non-auto-based travel modes. In addition to specific guidelines, it provides evidence of the benefits of transit-supportive development. The main TOD elements, increased density, mixed-use development, pedestrian orientation, and multi-modal street design are described and promoted. Because PD4T contains these TOD design fundamentals, it is applied in this report to Beaverton Creek and Orenco implementation even though the light-rail-specific chapter was never written.

Tri-Met's ability to advance the TOD guidelines they have developed will be explored in this report.

## **Transit Station Area Planning Program (TSAP)**

When Eastside MAX service began, Tri-Met had had a relatively small role in guiding transit supportive land use planning, and little to work with in terms of TOD potential. A variety of factors limited opportunities for TOD implementation. Specifically, the LRT alignment served to thwart transit oriented development, offering limited nearby development options and a scarcity of vacant buildable land. A stagnant economy at the time of the line's completion, further limited TOD opportunities. The land use patterns along the Eastside light rail corridor have not changed much over the thirteen years MAX has been in operation. Many of the station areas are still characterized by low-density, single family housing, and few of the stations can be considered TODs, even when broadly defined<sup>5</sup>. Planners understood at the outset that building transit supportive communities would be a challenge, and the fact that some headway was made in the face of adverse conditions is commendable. Eastside MAX did positively impact corridor development. While national assessed property values increased by 67.5 percent from 1980-91, the evaluation of several Eastside stations shows a more rapid increase, compared to local as well as national averages: Lloyd Center (+134%); 162nd (+112%); and 181st (+491%). Some of the station area planning efforts did achieve initial objectives. But given the ambitious Transit Station Area Planning program (TSAP) that had been devised years in advance, the outcome was still disappointing to some.

A coalition consisting of Tri-Met, Metro, Multnomah County, and the cities of Portland and Gresham, developed TSAP in 1980-1982 to serve the following purposes:

1. Ensure that planning for the new LRT line would facilitate land uses along the corridor consistent with TOD principles.
2. Enable local jurisdictions to capitalize on development opportunities surrounding the new transit stations.

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<sup>5</sup> Dueker, Kenneth, J and Bianco, Martha J. "Light rail Impacts in Portland: The First Ten years." Transportation Research Board, 78<sup>th</sup> Annual Meeting, January 10-14, 1999, Washington DC.

Ten years later, an evaluation of the TSAP effort was completed to examine its impact. Evaluation objectives were explicitly defined so that a systematic review of TSAP, corridor-wide and within each participating jurisdiction, could take place.

While many of the specific TOD goals were not achieved, an overall positive impact was revealed. Significant new development occurred along the LRT corridor and assessed values of properties located near transit stations increased faster than the county-wide average. Additionally encouraging was TSAP's influence on development, drawing new land use and urban design plans for each station area, and establishing guidelines affecting parking, ground floor retail, bicycle/pedestrian amenities, building orientations, design review, floor area ratios, local capital improvement plans, downtown master plans, intensification of zoning and allowable densities.

Some participants in the TSAP endeavor, however, lamented that these changes did not go far enough. They expected the TSAP program to more aggressively pursue development opportunities. They hoped that a close examination of the Eastside planning process would result in applicable techniques to facilitate TOD implementation on the Westside. The TSAP evaluation provided detailed recommendations for future station area planning endeavors.

Armed with experience and lessons learned from the Eastside TOD pitfalls, Tri-Met and local jurisdictions embarked upon the Westside LRT extension project. Expectations were high, given the previous analysis and the more TOD-friendly conditions existing along the new alignment. One station in the Hillsboro segment contained more vacant land than all the Eastside stations combined. In 1994, there were approximately 1500 acres of buildable land in the vicinity of Westside stations; ample opportunity for transit oriented development. Successful TOD implementation seemed promising.

Within the case studies to follow is an investigation of how, why, and to what extent this promise was broken. The degree to which TSAP evaluation recommendations were applied in station area planning at Beaverton Creek and Orenco will be examined, and implications discussed.



# Case Studies

## Introduction

Following the TSAP evaluation, which provided specific station area planning recommendations, there was reason for planners to be optimistic about Westside MAX TOD prospects. TODs along the Westside LRT are more prolific than on Eastside MAX, and are more highly regarded than similar attempts in other metropolitan areas. However, some stakeholders feel that they have not all reached their full potential. Some link this to the discrepancy between original plans and final TOD products. It is important to analyze the degree of consistency between planned and built TODs because TOD master planning requires large investments, both public and private. Significantly altered or unused master plans indicate that these investments are being wasted, and that TOD implementation techniques need improvement. It can also mean, given the meticulous planning process, that the final TOD product is less effective. In many cases it has proven challenging to build TODs as planned. The objective of this project was to identify factors that contribute to this challenge, and make recommendations to mitigate them. Two recent additions to Portland's TOD stock were chosen to closely analyze the planning and implementation process. Both pitfalls and implementation-enabling factors were revealed through this investigation.

The basis for selecting the Orenco and Beaverton Creek station areas relates to their compatibility for analysis, their initial objectives, local/national interest, and relevance to future TOD implementation. Specific differences and similarities will be described in greater detail in subsequent sections; an overview of some of their shared factors are listed below:

- **Size:** The Orenco station area is roughly 190 acres, and the Beaverton Creek site is 122 acres.
- **Employers:** Intel and Nike, major employers, are located immediately adjacent to Orenco and Beaverton Creek, respectively.
- **Planning:** Both TODs required extensive master planning, involving many stakeholders representing a range of interests.

At the outset, these two station areas seemed poised for similar master planning implementation, with similar results. According to Tri-Met and other stakeholders, however, the planning and development processes were quite different, and provide an interesting contrast. Additionally, these TODs in particular may be of interest to agencies elsewhere looking to implement transit supportive development; Orenco, for example, has been heralded as a national model for its award-winning design, while Beaverton Creek has not received similar attention. The current analysis was limited to these two TODs so that an in-depth investigation could take place within the short time allotment for this project.

This section contains the following information for each station area:

- **Vital Statistics** – Descriptive data on site characteristics
- **Planning and Development Process** – Chronology of key events in TOD implementation
- **Stakeholder Perspectives** – Interview data related to the implementation process



## Methodology

Research was conducted to piece together the stories of Orenco and Beaverton Creek and derive conclusions about their implementation processes. Primary and secondary data was gathered and cross-referenced where appropriate. The various sources provided a substantial data pool allowing an assessment of the planning and development experience at the two sites.

### Primary Data

Twenty-eight interviews were conducted with key stakeholders involved in planning and development of the Beaverton Creek and Orenco station areas. To ensure a range of representative viewpoints, the following professionals were interviewed: City and County planners, Tri-Met and Metro planners, developers, architect/urban designers, lenders and economic advisors, business owners, corporate representatives, and other consultants.

Interview questions were designed to reveal perspectives on TOD implementation, identify barriers to effectiveness and to solicit ideas for possible remedies. Sets of questions specific to each implementation role, as listed above, were developed to maintain consistency so that comparisons could be made and common themes could emerge.

### Secondary Data

A range of secondary sources were consulted:

- ◆ Historical zoning and land uses in existence at the time of development were compiled from project files at the Cities of Hillsboro and Beaverton.
- ◆ Current zoning was derived from City maps and Metro's RLIS database.
- ◆ Local development project proposals from each jurisdiction were reviewed for design changes that may have occurred within various stages of the development process.
- ◆ US census data were used to supply demographic information (e.g. age and income of residents) for the two cities.
- ◆ Technical reports and economic studies conducted at the time of development were researched. For example: consultants' findings from EMME 2 modeling on Cornell Road; and short and long-term regional economic and market forecasts and growth/population projections.
- ◆ Regional agency documents such as the Statewide planning goals, ODOT's TPR, Metro's RTP and 2040 Plans, Tri-Met's TOD guidelines and related reports provided regulatory context and background information.

For a complete list of interview participants and questions, and the research materials used, please refer to p. 61 of the Appendix.

# Beaverton Creek Station Area

## Vital Statistics

### Site Size and Composition

Nike (Tek Woods) = 74 acres, Murray North (LaSalle)= 23 acres, Murray South (Centerpointe) = 14 acres, Simpson Housing Property = 9.6 acres, Specht Development Inc. = 9.2 Acres, Tri-Met = 7 acres. The original master plan for the site, Murray West, encompassed 122.5 acres (it did not include the Centerpointe property).

### Number and Type of Units

LaSalle contains 304 garden apartments, 211 townhomes, and 39 mid-rise apartments over ground floor retail. Centerpointe has 276 units.

The Simpson Housing site is expected to have 360-500 apartment units.

The original Murray West concept plan called for 1434 multi-family housing units, and 190 single family residences.

### Number of Residents

LaSalle: 1274 (est.), Centerpointe: 635 (est.), Total: 1909. Trammell Crow Residential (TCR) claims over 2000 residents currently live in the development. Buildout of Murray West would have housed approximately 3750 residents.

### Amount of Retail Space/Retailers

Approximately 10,000 square feet of retail. Retailers include Prego Pizza, a florist, a beauty salon, an insurance agency, and a juice vendor.

### Construction Status

LaSalle and Centerpointe, owned by TCR, are completed. A four-story mid-rise with 54 apartments and a childcare facility was proposed initially and may be constructed in the future. The Simpson property is slated for development, pending the resolution of infrastructure access problems. Nike may expand its campus to the Tek Woods property or maintain it as a buffer.

### Location Along MAX

Nine miles west of downtown Portland and 30 minutes by MAX.

### Previous Zoning

All parcels were previously zoned Campus Industrial (CI) or Industrial (I). A transit overlay district was also in place beginning in the early 1990s, on the Murray West parcels.

### Current Zoning

Current zoning designations include Station Community - Multiple Use (SC-MU), Station Community - High Density (SC-HDR), Station Area - Medium Density (SA-MDR), Urban High Density (R1), and Campus Industrial (CI).

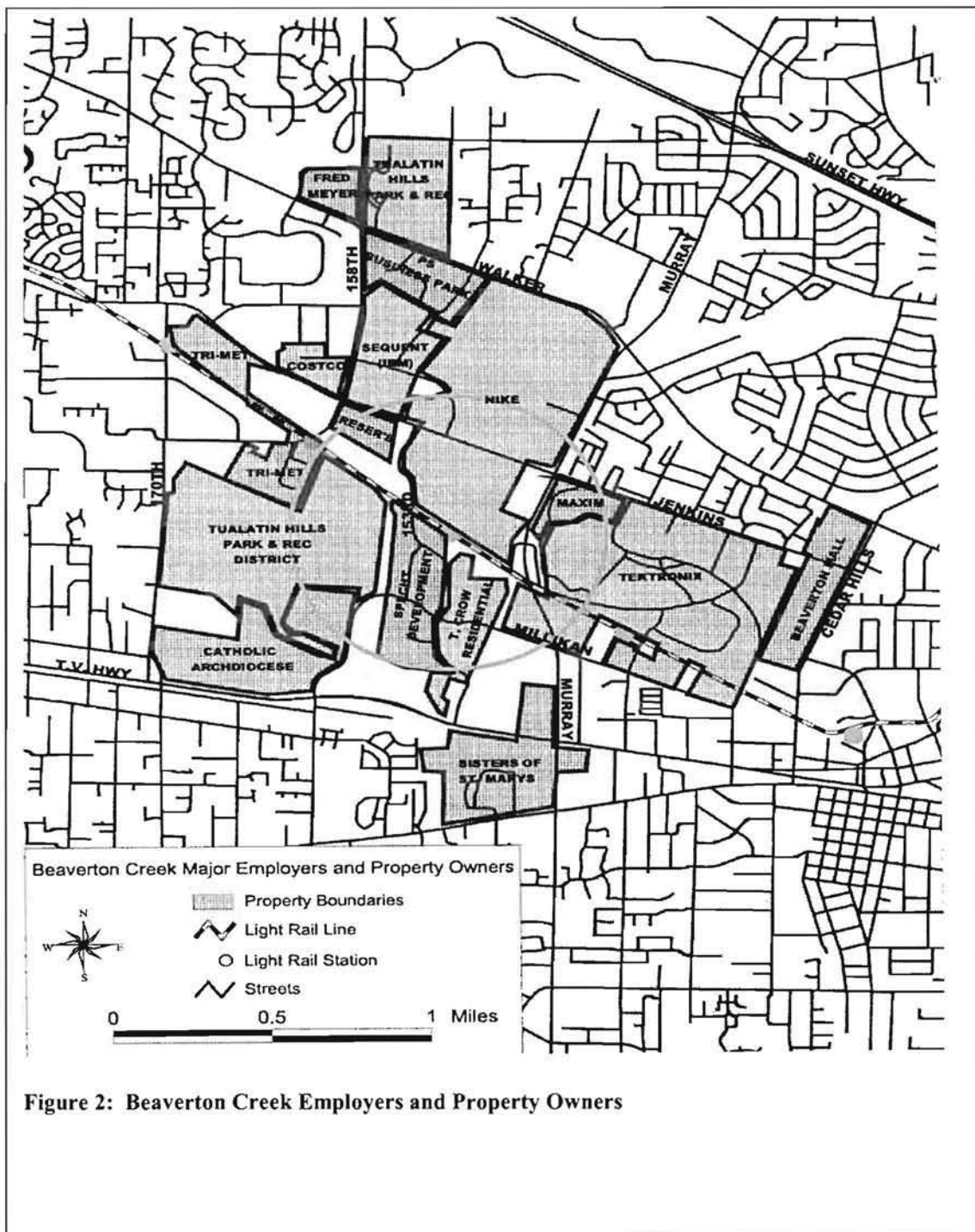
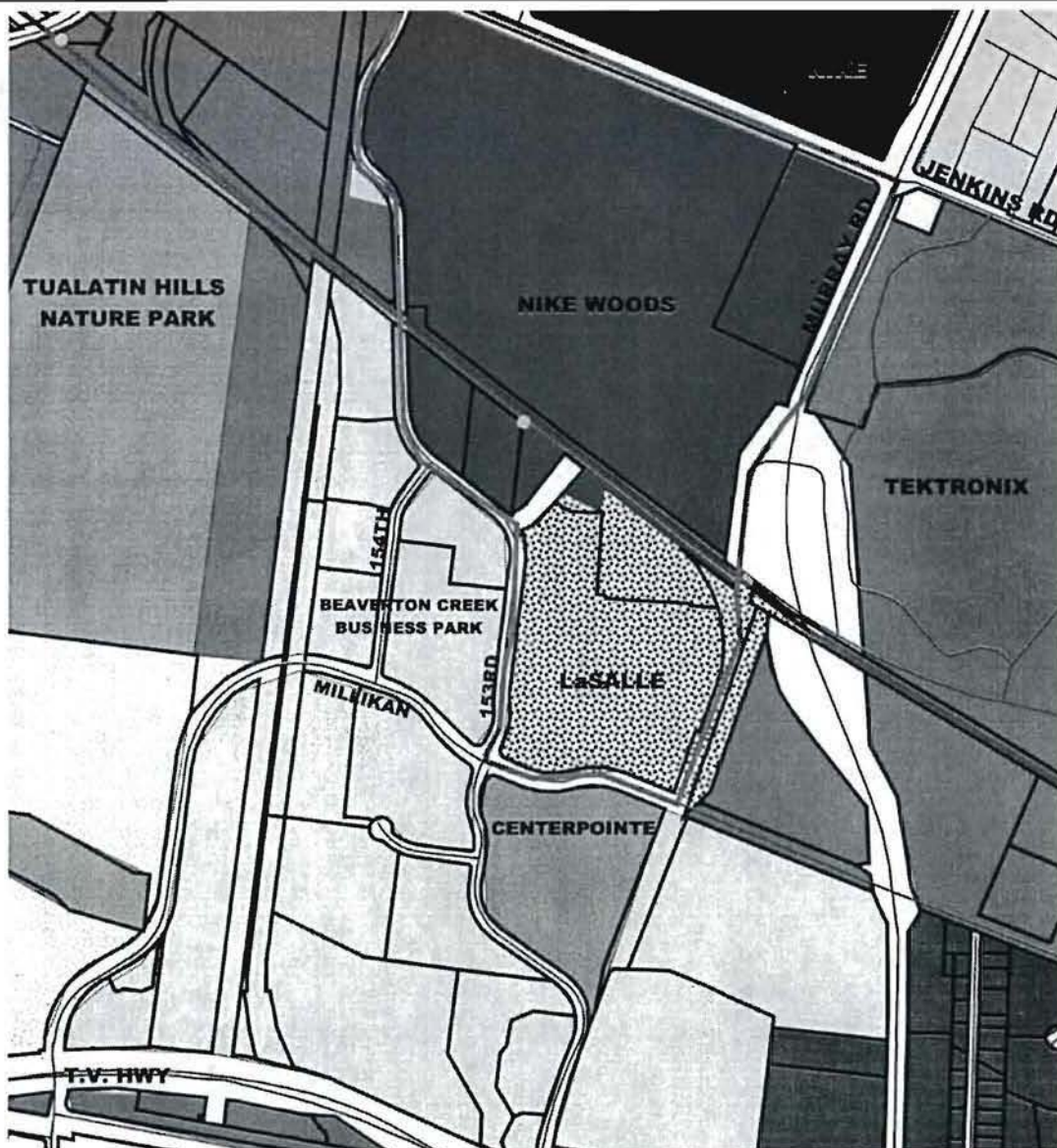


Figure 2: Beaverton Creek Employers and Property Owners



**Beaverton Creek Area Detailed Zoning: December 1999**

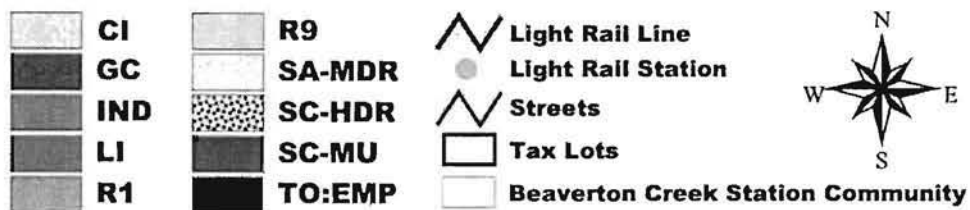
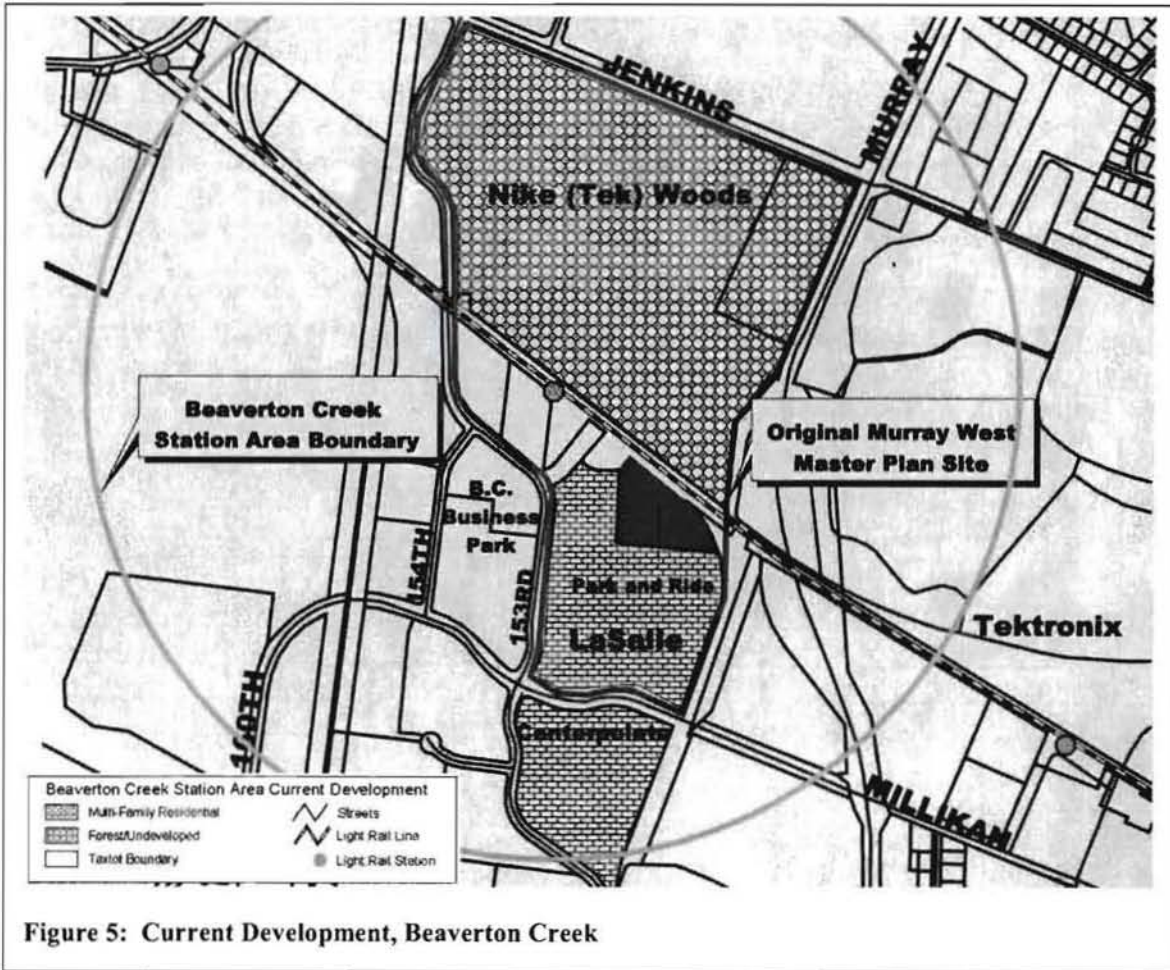


Figure 3: Beaverton Creek Detailed Zoning







**Figure 5: Current Development, Beaverton Creek**

### Density and Parking Ratios

Density for the LaSalle mid-rise is 53 units/acre; the remainder of LaSalle is 35 units/acre. Centerpointe is at 24 units/acre. The parking ratio is 1.8 spaces/unit, with approximately 997 spaces at LaSalle and 475 spaces at Centerpointe. The Tri-Met park and ride contains 430 - 443 spaces.

### Rental and Home Prices

Rental prices at LaSalle initially ranged from \$650-\$900 per month. The price range as of September 1999 was \$700-\$1400 per unit.

### Major Employers in the Vicinity

Nike, Sequent Computer Systems, Tektronix, General Motors, and Beaverton Mall.



### Master Plan Market Conditions

A market demand study performed by Hobson Johnson & Associates indicated a tight labor market with low unemployment. Additionally, there was a high unemployment rate in California; a net in-migration of residents was predicted over the short-term. Housing prices were also increasing faster than any other western city at the time, and apartment vacancy rates were low and declining. Combined with an anticipated major expansion in the employment base in the area, Hobson Johnson considered housing an optimum choice for the Beaverton Creek area.

*The data for this section was obtained from the following sources: City of Beaverton design review files and zoning maps; Metro's RLIS database; Trammell Crow Residential and Tri-Met documentation.*

### Area Demographics

	Beaverton 1990	State 1990	Wash. County 1990	State 1994	Wash. County 1994
Median HH Income	\$33,951	\$27,250	\$35,554	\$37,200	\$42,300
Per Capita Income	\$17,200	\$13,418	\$16,351	\$20,471	\$23,054
Median Age	31	34.5	n/a	n/a	n/a

Beaverton Creek- Census Tract 314.02	1990	1995	1997	1998	1999
Population	1016	1060	2114	2184	2155
Households	498	509	1042	1035	1044
Single Family Units	147	153	153	154	154
Multi-Family Units	376	376	954	954	954

Note: Beaverton Creek is part of a very large census tract as shown on the included map. The population estimates starting with 1998 may be inaccurate. The opening of the LaSalle and Centerpointe housing facilities at Beaverton Creek should have added approximately 2000 residents to the census tract between 1995 and 1998. This data was obtained from the US Census Bureau and Metro's RLIS database.

## Planning and Development Process

Before construction of the light rail line, the land where the Beaverton Creek station is now located was wetlands, forest, and farmland. There were few services, and no housing. Most of the area was zoned industrial, with the land south of Beaverton Creek dominated by industrial uses. To the north was the large Tek Woods forest and Nike's world headquarters.

In 1991, Tri-Met engineers began the planning process for track alignment and station siting. To preserve the land closest to the stations for more intense future development, the City of Beaverton changed the zoning in the Beaverton Creek area to require at least 35% of any property to be high density residential. High density residential zoning allows no more than 1,000 sq. ft. of lot space per housing unit; approximately 40 units per acre. The Westside LRT alignment and station locations were finalized in July 1993 with Beaverton Creek (then called Murray West) designated as a station area.

In early 1994, Tri-Met initiated a station area master planning process for Murray West. The plan was a collaborative process involving the area's property owners; Tri-Met, Tektronix, US Bank of Oregon, First Western Development, and Beaverton Creek Limited Partnership (primarily Greg Specht of Specht Development Inc.). Specht had recently purchased an option to buy the Tek Woods site from Tektronix. US Bank owned the property south of the light rail line, which was later purchased and developed into the LaSalle and Centerpointe residential communities by Trammell Crow Residential (TCR). First Western owned a 9.6-acre parcel of Tek Woods at the corner of Murray Boulevard and Jenkins Road. Tri-Met designed the access to the station, and created a footprint for the development location. The property owners enlisted Fletcher Farr Ayotte (FFA) and Calthorpe Associates to design a model transit-oriented development for Murray West.

The Murray West Preliminary Master Plan, completed in October of 1994, called for a mix of high-density residential, retail and office space, and manufacturing, on both sides of the light rail line. In the original plan, Tri-Met sited the park and ride lot for maximum convenience to transit patrons on land adjacent to the south side of the station. The City of Beaverton wanted to place development between the park and ride and the station so residents would walk through retail and commercial development before reaching the platform. They worked with Tri-Met to move the park and ride 500 feet to the east. The City reportedly had only a minor role in the other aspects of the master planning process.

Tri-Met wanted to mitigate automobile dependence within the development by reducing parking ratios. The City of Beaverton had a minimum residential parking ratio of 2.0 spaces/unit, but they relaxed this restriction at Beaverton Creek to 1.6 spaces/ unit. The surrounding businesses however, voiced their concerns to the City of Beaverton about spillover parking. The City of Beaverton compromised at a final residential parking ratio of 1.8 spaces/unit.

With limited leverage/enforcement ability, Tri-Met also advocated limited parking for the retail establishments, reasoning that higher densities would alleviate retail reliance on non-residential, auto-reliant patrons. Tri-Met pushed developers to increase residential density, and decrease block size to create a more pedestrian-friendly environment.

However, higher density residential development and smaller block sizes increase the cost of providing infrastructure. Some property owners objected to the limited parking, and believed the market would not support the degree of density sought by Tri-Met and Metro. Directly related to the frustration surrounding these issues, Greg Specht opted out of the original design process and hired John Spencer to develop an alternative plan, in the spring of 1995. A few months later he sold his option for the Tek Woods site to Nike. Nike then purchased the property from Tektronix for a reported \$8,000,000, in order to bank land for future expansion of its campus, and to create a buffer against residential development.

The City of Beaverton asked Nike to provide access to the Beaverton Creek station from Jenkins Road, and to either sell a portion of Tek Woods near the station for public housing, or adhere to the 35% residential development requirement. Nike did not want residential development on the site, and resisted the request for public access through the site. Two months later, the City of Beaverton passed a requirement for at least 750 housing units to be provided at Beaverton Creek. In December of 1996, Nike appealed to the Beaverton City Council, stating that locating jobs near the station was transit-supportive and should substitute for the residential requirement. The City then reduced the housing requirement to 15% of the 74-acre parcel. It deemed the scheduled construction of housing units on other nearby properties sufficient. This eventually completely relieved Nike of the housing requirement. The need for housing in the area was also lessened by Simpson Housing's purchase of the site formerly owned by First Western Development, in August of 1996, for multi-family residential development.

The plan for high density residential on the south side of the station continued, despite the failure of the Murray West Master Plan. TCR purchased US Bank's property and began construction of Murray South (Centerpointe Apartments) in the summer of 1995. The complex opened in April 1996. The land nearest the station became Murray North (LaSalle Apartments), currently the highest density residential development on the Westside, at 35 units/acre. Construction at LaSalle began in the summer of 1996, and it opened in late 1998, with the first retail business opening in January of 1999. Tri-Met encouraged TCR to incorporate retail and commercial space with the residential development in order to meet the requirements of a true mixed-use development, and to have it face the station and the park and ride, rather than the street.

Tri-Met applied for a \$975,000 federal Congestion Mitigation Air Quality (CMAQ) grant for infrastructure improvements to encourage pedestrian use, such as walkways, narrow streets, and sidewalks. Tri-Met and TCR also proposed a four-story apartment building with a ground-floor childcare facility for Tri-Met's land near the station. This never materialized as the request for the CMAQ grant was denied. The City of Beaverton sued Tri-Met for the loss of promised pedestrian amenities, but the court ruled in favor of Tri-Met.

Simpson Housing has yet to begin development of its parcel, apparently because of difficulty obtaining access for infrastructure across Nike's property. The overbuilding of the rental apartment market in the Sunset corridor, and code issues such as restrictions against wooden construction higher than five stories, have also held up the start of the development. Nike has not announced its ultimate intentions for the Tek Woods site. The parcels nearest the station remain undeveloped. TCR and Tri-Met are reportedly



involved in discussions about the possibility of building additional housing units on a portion of the park and ride, as it is operating well under capacity.

## Stakeholder Perspectives

A diverse set of interviews with participants in the Beaverton Creek planning process revealed several common themes. Frequently mentioned perceptions include the following:

- ♦ The Beaverton Creek TOD has not fully reached its potential.
- ♦ The planning process was complicated and frustrating.
- ♦ The retail component of LaSalle is problematic.

These themes are woven throughout the various topics covered in interviews. Specific stakeholder opinions about some of the key aspects of the Beaverton Creek planning and development process are described below. Summaries of perspectives are organized by subject; the issues identified formed the basis for the conclusions drawn. A detailed list of the full spectrum of viewpoints revealed during the interview process is provided in the Appendix (see p. 63).



Figure 6: LaSalle Retail Center

### Retail

The general consensus about the retail element of Beaverton Creek is that it was poorly sited and will probably not succeed in the short term. Developers and planners agreed that visibility is an issue. Retail was sited to be visible to the LRT station, a concession by Trammell Crow to Metro and Tri-Met to activate the park and ride. An architect interviewed said that Beaverton Creek should not even have retail; it was only included to meet the mixed-use TOD criteria. Some suggested that it might have worked better as an

adaptive use, with portions of the development space converted to retail when made viable by additional residential development in the area. Many mentioned that without the Tek Woods parcel being developed, the retail cannot function properly. Current business owners are dissatisfied. Some feel false promises were made: one is currently involved in litigation with Trammell Crow; others have closed.

### Parking

According to developers, under TOD code, commercial parking requirements can only be satisfied with structured parking, which in most cases is not financially feasible to build in the suburbs. They feel that parking ratios have been reduced so much under TOD standards that the ability to develop commercial property has been severely limited. Indeed, parking was a major issue of contention between planners and developers; including siting of the park and ride facility. Tri-Met's push for low parking

ratios and their recommended park and ride location were not well received. An architect involved in the project felt that the biggest success at Beaverton Creek was moving the park and ride to free up prime development property. Retailers complain that the park and ride is only at 40 percent capacity, contributing to their lack of customers.

### Light Rail

Other stakeholders agreed with retailers that light rail does little to increase business. A developer stated that light rail has been absolutely no benefit to businesses near the stops. One planner said there is a competitive advantage in being located along LRT, but admitted that it is a rare developer who sees it this way. Most financial institutions agree that it is not particularly beneficial, claiming that it does not add value, raise rents or increase a project's chances of success. Some studies have indicated otherwise, but developers and lenders are not convinced of this contrary evidence. They indicated that light rail may increase potential investors' interests, but that it is not a true development incentive.

### Density

As with parking issues, disagreement about appropriate density caused a rift between developers and planners and contributed to the difficulty in establishing a shared vision at Beaverton Creek. Tri-Met wanted 40 units/acre of mid-rise, high density concrete construction with parking below. Developers believed this to be vastly expensive and unsupported by the market: "The density requirement that many jurisdictions are trying to push is too high. The only way to build at the type of densities that planners are asking for would be with some kind of subsidy or tax abatement." Returning to the concerns of business owners and the parking issue, stakeholders mentioned that Beaverton Creek's density is not enough to support retail without auto traffic. An architect interviewed argued that density is not as important as the basic structure because housing configurations will change over time. This underscores the fact that planners for Beaverton Creek may have been wise to take a less aggressive approach in the density debate. This might have better enabled developer buy-in and improved the planning process.

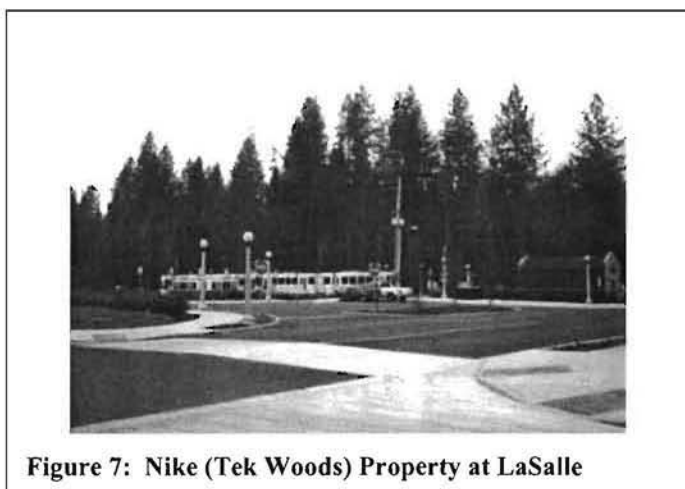


Figure 7: Nike (Tek Woods) Property at LaSalle

### Tek Woods (Nike) Property

Directly tied to the rocky implementation process caused by parking, density and other issues, were changes in developer/owner representation, resulting in Nike's purchase of Tek Woods. As mentioned in the previous section, Nike has not cooperated in providing TOD elements; their 74-acre parcel remains vacant. General agreement among stakeholders is that the project is incomplete and

cannot function properly until this site is developed. The theme of Beaverton Creek's not having met its potential, is largely related to the fact that Tek Woods was slated for mixed-use development which would have supported and enhanced a similar



environment south of the station. The exclusion of this parcel to the north greatly compromises the overall TOD environment; the station area as a whole suffers while the future for Tek Woods is uncertain.

#### Tri-Met and the City of Beaverton

It was nearly impossible to create a shared vision for Beaverton Creek given the stakeholders' conflicting agendas and loosely-defined leadership roles. Not only were there philosophical differences between planners and developers, as described above, there was also disagreement among jurisdictions and within Tri-Met. A City of Beaverton planner claimed that "Tri-Met had totally different criteria, objectives and agendas than other government planners. They were very uncooperative, especially the engineers." Planners and architects involved felt that the agenda of Tri-Met's engineers was the complete opposite of city planners', and that there "appeared to be a conflict in goals between the real estate and operations people." Largely due to this interagency clash, a local planner indicated that "the light rail siting process was the worse public process (he) was ever involved in." Meanwhile, developers and financial consultants said that the City of Beaverton was difficult to work with, tough to get approvals from and had an outdated code. Lack of clear leadership exacerbated rocky relationships and prevented cooperative visioning. An architect interviewed summarized the problem with Beaverton Creek implementation: "The key players had conflicting goals. No one entity was clearly in charge."



## Orenco Station Area

Descriptive data for the Orenco station area is displayed below, followed by a chronology of the planning and development process, and a discussion of stakeholder perspectives on the TOD implementation process.

### Vital Statistics

#### Site Size and Composition

The overall site is approximately 190 acres. It includes a town center with retail space, town homes and live/work residences developed by PacTrust, and single family residences developed by Costa Pacific Homes on 68 acres north of Cornell Road. A multi-family development by Fairfield Investments (the Stonebrook complex and Senneca Village) of 17 acres, and a retail center of 50 acres are east of the town center on Cornell Road. South of Cornell is a parcel of 7 acres, owned by Simpson Housing and slated for multi-family residences. Vacant parcels and the Tri-Met park and ride are also located near the light rail station south of Cornell.

#### Number and Type of Units

Housing units include 450 single family residences under construction by Costa Pacific, ranging from 1200 - 2500 sq. ft. on 3000 - 4000 sq. ft. lots, 624 apartments and town homes by Fairfield Investments, and 810 apartments by Simpson Housing, including Club 1201, a 210-unit condominium complex. The minimum number of housing units required by code at buildout is 1834.

#### Number of Residents

Estimated 4200 residents at buildout.

#### Amount of Retail Space/Retailers

Retail space of 25,000 - 27,000 sq. ft. at the Orenco town center, with 30,000 sq. ft. of Class A office above, and 500,000 sq. ft. at the retail center. Businesses at the town center include: All About Eyes, Starbucks, Off the Vine, First American Title, Prudential; and two restaurants, Shalimar and Merchant of Venice. The retail center is anchored by GI Joe's and Waremart Foods.

#### Construction Status

The town center, single family homes, and retail center are nearing completion. Simpson Housing has not determined a completion date for the remainder of its parcel due to an overbuilding of the rental apartment market in the area.

#### Location Along MAX

13.5 miles from downtown Portland; 42 minutes by MAX.

#### Previous Zoning

Zoning was previously Light Industrial (MP) on most of the property south of Cornell Road, and Low-density Residential (R7), Multi-family Residential (A4), General Commercial (C1), and Light Industrial (MP) north of Cornell Road. Much

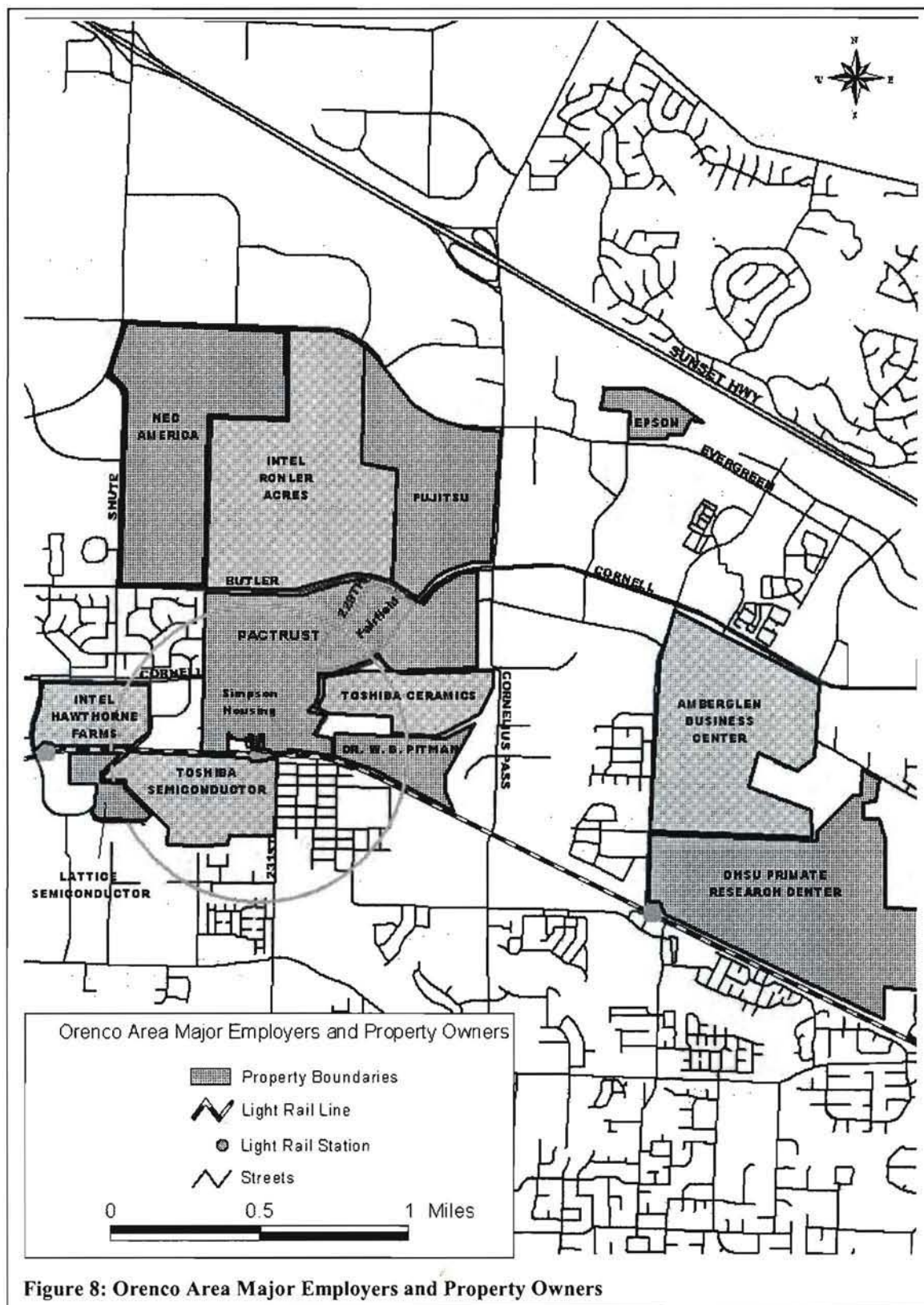


Figure 8: Orenco Area Major Employers and Property Owners





of the current site of the Orenco town center and Intel's campus was to be a single family residential subdivision called Ronler Acres. The vacant parcel south of the light rail line, and property 500 feet to the north of the line was covered by an industrial overlay zone prohibiting residential development. A Station Area Interim Protective Ordinance preserved the Orenco station area for transit oriented development until current zoning was enacted.

#### Current Zoning

Current zoning in the station area includes Station Community Residential-Village (SCR-V), Station Community-Station Commercial (SCC-SC), Station Community-Business Park (SCBP), Station Community-Industrial (SCI), Station Community-Multi Modal (SCC-MM), and Station Community Residential-Orenco Townsite Conservation (SCC-OTC).

#### Density and Parking Ratios

The density ranges from 7 ½-8 ½ units per acre for the single family residential area, to 22 units per acre for multi-family residential. The site will contain approximately 3300 parking spaces at buildout, roughly 1.8 per unit. The Tri-Met park and ride contains 150 spaces.

#### Rental and Home Prices

Initial estimates for home prices were \$150,000 - \$280,000 for the first phase. As of September 1999, home prices were \$170,000 - \$300,000+. Rental units are \$715 - \$1231 per month. Orenco town center office space started at \$18 per sq. ft., about \$2/sq. ft. more than comparable space in Portland.

#### Major Employers in the Vicinity

Major employers include Intel (Ronler Acres and Hawthorne Farms sites), Toshiba Ceramics, Fujitsu, Epson, Soloflex, and the Oregon Primate Research Center.

#### Master Plan Market Conditions

According to a market study by Leland Consulting, the average price of industrial land in the area had decreased from \$70,000 per acre to \$35,000 per acre in the previous two years. The retail and commercial markets were also in the midst of a recession. The housing market was also poor but showing signs of recovery. The consultants' study also indicated that housing in the vicinity of light rail could command a premium over housing of a similar quality.

*The data for this section was obtained from the following sources: City of Hillsboro zoning maps, the Orenco Station Area Master Plan, Metro's RLIS database and PacTrust and Tri-Met documentation.*



## Area Demographics

	Hillsboro 1990	State 1990	Wash. County 1990	State 1994	Wash. County 1990
Median HH Income	\$33,125	\$27,250	\$35,554	\$37,200	\$42,300
Per Capita Income	\$12,800	\$13,418	\$16,351	\$20,471	\$23,054
Median Age	30	34.5	n/a	n/a	n/a

Orenco- Census Tract 326.02	1990	1995	1997	1998	1999
Population	8,024	9,697	10,178	10,514	12,163
Households	2,991	3,318	3,535	3,945	4,445
Single Family Units	2,290	2,537	2,779	2,983	3,083
Multi-Family Units	812	848	850	1,077	1,479

The Orenco Station Area is part of a very large census tract which includes a portion of downtown Hillsboro. The increase in population from 1998 to 1999 is largely attributable to the Orenco development. This data was obtained from the US Census Bureau and Metro's RLIS database.

## **Planning and Development Process**

The land around Orenco was amassed early. In 1984, PacTrust began assembling the 190 acres that make up the Orenco station area to build an industrial park, purchasing lots one at a time. During this process, many landowners could not be contacted. The City of Hillsboro used eminent domain to take these unclaimed lots. PacTrust then traded land with the City. In exchange for what later became Intel's chip fab plant, they received lots north of the station, including the unbuilt Ronler Acres subdivision, to form a continuous parcel of land.

In 1990, Metro and the State declined to make Orenco an historic area. As part of the 2040 Regional Plan, Metro designated Orenco as a town center and rezoned accordingly. The City of Hillsboro then formed an urban renewal district for Orenco, and instituted an interim protective ordinance to preserve the station area.

Per federal funding requirements, the City of Hillsboro initiated a station area planning process. Later in 1990 and 1991, the Oregon Department of Transportation (ODOT), Metro, and Tri-Met supplied the funds for this planning, and the City of Hillsboro took the lead. Calthorpe and Associates was hired to create theoretical plans. Other consultants for the project included PacTrust and staff from Tri-Met, Metro, Washington County and the City of Portland. Intel had not yet begun construction of their Ronler Acres plant, so was not included in the initial planning process, although input was sought in subsequent stages, as described below. Intel later agreed to contribute to a shuttle service linking their facilities to the LRT station and residential areas of Orenco. All Intel employees are provided with free, unrestricted, annual transit passes.

Model regulations were drafted in 1993. In July of that year, Tri-Met finalized the Westside LRT alignment and station sitings. The alignment follows the Burlington

Northern Railroad right-of-way through Orenco. The federal approval of Section 3 New Start Funding for the Hillsboro LRT extension (from 185<sup>th</sup> Avenue to the end of the line in downtown Hillsboro) set a national precedent. This was the first and only time that Federal Transit Administration funding has been provided to build a rail line on the basis of its potential for effecting positive land use pattern changes. The grant was contingent upon the enactment of and local compliance with Metro's Region 2040 concept plan, adoption of local station area plans supporting transit ridership, and adoption of policies to meet the State Transportation Planning Rule.<sup>6</sup>

In 1994, the City of Hillsboro passed a protective zoning ordinance for Orenco. The City of Hillsboro and PacTrust split the cost of hiring Leland Consulting to perform economic and market assessment of the site. PacTrust was invited to the table by the City of Hillsboro to help construct the station community zoning; together, they then negotiated with Metro and Tri-Met on residential density. Within the City of Hillsboro, the planners worked with the fire and engineering departments to create new public work standards for street width, street-turning radii/curves, building codes, lighting, storm water drainage, and water quality.

Toshiba had an industrial overlay district for its property south of the station, and considered building a plant on the site. This zoning designation prohibited residential development within 500 feet of the edge of the property. The setback was subsequently reduced to allow housing to be built next to the station.

Similar to the Beaverton Creek process, Tri-Met originally located the park and ride in front of the station. They were asked by PacTrust and the City of Hillsboro to relocate it to the west. The plan for Orenco was to create a vista of the town center from the station. Tri-Met applied for and received a \$500,000 CMAQ flexible fund grant for pedestrian improvements, a large portion of which was drained by park and ride relocation costs. The remainder was used for pedestrian walkways and lampposts.

Cornell Road is a five-lane arterial running through the Orenco development. It was originally designated as seven lanes in the Washington County Transportation Plan. In September of 1995, PacTrust requested that Washington County change the designation of Cornell Road to five lanes, and agree to never expand it, to avoid having a major throughway dissecting the development. The City of Hillsboro then hired transportation consultants to find alternative means to accommodate the traffic demand in the area without expanding Cornell. The consultants found that if other improvements were made throughout the county, the traffic network would function with Cornell Road held at five lanes.

The City of Hillsboro assisted in a PacTrust survey of Intel employees which asked what type of housing they would like to see in the area. Needs of nearby residents were also considered. In January of 1995, Orenco Residents filed notice to appeal Orenco Station's zoning and density regulations to the Land Use Board of Appeals (LUBA). In July of 1995, LUBA upheld the City of Hillsboro's zoning. A compromise was reached with the Orenco Neighborhood Residents to lower density requirements from 45 persons/acre to 34.5 persons/acre. Although some of the code language refers to persons per acre, it is derived from the number of allowable housing units per acre, multiplied by an estimate of approximately 2.3 persons per unit.

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<sup>6</sup> Arrington, GB. "At work in the field of dreams." Tri-Met, 1998.

In August 1996, new station area zoning was adopted by the City of Hillsboro. The PacTrust Master Plan was then submitted to the City of Hillsboro, and approved a year later.

Prior to Orenco, PacTrust had been involved solely in industrial and commercial development. The parcels designated for multi-family housing were sold to Fairfield Development and Simpson Housing Corporation. Fairfield Development completed Cortland Village in the spring of 1997. PacTrust and Costa Pacific formed a joint venture to build the single family housing north Cornell Road and the town center. Also in the spring of 1997, Costa Pacific began construction of single family homes. Fifty percent of the single family housing is attached in order to meet the density requirements. It also has smaller block sizes and lot sizes of 4,000 square feet. The density at the three developments ranges from 7.5 to 8.5 units per acre for the single family housing, and 22 units per acre for the multi-family housing.

In September of 1997, the City of Hillsboro approved PacTrust's Orenco Station Master Plan. In April of 1998, the plans for the town center were approved; it is now nearing completion, as are the single family homes and retail center. Simpson housing recently completed the Club 1201 condominiums on a portion of their site; they have not determined a construction schedule for the remainder of the parcel, due to an overbuilding of rental units in the area. Toshiba is reportedly negotiating with residential developers for sale of their property south of the LRT station.



## Stakeholder Perspectives

The interviews with participants in the Orenco planning process revealed a different set of themes from those of Beaverton Creek. Frequently mentioned perceptions include the following:

- ♦ The Orenco TOD was largely successful in terms of meeting its original objectives.
- ♦ The planning process was relatively smooth, inclusive and cooperative.
- ♦ Station area retailers are generally satisfied with business prospects.

These themes are woven throughout the various topics covered in interviews. Specific stakeholder opinions about some of the key aspects of the Orenco planning and development process are described below. Summaries of perspectives are organized by subject; the issues identified formed the basis for the conclusions drawn. A detailed list of the full spectrum of viewpoints revealed during the interview process is provided in the Appendix (see p. 63).



**Figure 10: Orenco Station Town Center**

### Retail

Part of the reason Orenco has been declared a success and received national attention relates to its retail element. Business owners are pleased with patronage levels, encouraged about future prospects, and generally satisfied with their location at Orenco. One claimed that the demographics of the station area were key to the success in attracting and maintaining retail tenants. Another said that "people are moving in

and there is a lot of disposable income." The fact that the retail area is well sited, between the station and the residential area, is linked to its success; people walk past it on their way to the station. However, the retail at Orenco had to be on Cornell road, according to a planner interviewed, who maintained that while "transit can help mold development, the car is still king." Other stakeholders echoed the idea that light rail does little for retail, and that people will continue to shop via automobile unless the product they want is light and easily carried or consumed on site; it takes a long time to break the car habit.

### Light Rail

Indeed, an Orenco developer said that light rail is viewed as an amenity rather than a major mode of transportation. He thought that it might have been more effective if it had been built closer to Cornell Road. As with the town center retail area which PacTrust invested heavily in (beyond what was necessary, according to stakeholders), light rail proximity was used as a marketing tool to attract people to the community. A financial analyst said most residents view light rail as an asset; a survey indicated that it was the second most important factor in their choice to move to Orenco. While research shows



that people will live at higher densities near light rail, a planner interviewed noted that "being located next to light rail does not automatically make it a good place to live."

### Parking

According to a developer, jurisdictions wanted to strip parking requirements to a bare minimum at Orenco when the reality is that people still want two cars, particularly in suburban locations. Consistent with developers' concerns at Beaverton Creek, an Orenco developer indicated that the structured parking often called for in TODs "costs \$12,000 - \$15,000 per space, making it impractical for most projects." It was determined that in order to draw enough customers, it would be necessary to make retail auto-oriented along Cornell. A compromise was made though in placing the parking behind the retail area to better accommodate pedestrians. Another commonality between Beaverton Creek and Orenco was the relocation of the park and ride lot. Stakeholders felt that having it sited in front of the rail station was a design flaw which eliminated prime developable land, and that "Tri-Met should have had more sense about the location: "Its eventual re-siting cost \$300,000, essentially wasting the CMAQ grant which had been acquired for more constructive purposes."

### Density

Along with parking issues, density is typically an area of contention between TOD planners and developers. In fact, PacTrust representatives felt that the biggest challenge at Orenco was related to density. They said that it was difficult to obtain flexibility concerning density formulas, and that given little history in the area for attached housing, it was a big financial risk to go with the higher densities recommended. According to a financial consultant, developers prefer to build at 3 units per acre to maximize profits, and that "developers in general thought higher density was nuts." As was revealed by Beaverton Creek stakeholders, planners and developers often have opposite density agendas. Orenco planners interviewed conceded that density for density sake does not work, simply increasing density is not the answer, and "density must be combined with community."

### Stakeholder Cooperation

A primary reason the Orenco process worked out well was that there was good public/private partnership and functional relationships among jurisdictional representatives. One planner interviewed said "Orenco was successful because planners worked with owners and the adjacent community and offered flexibility rather than prescriptions and rigidity." Compared to Beaverton Creek, stakeholder roles were better and more appropriately defined. The process was driven by the partnership between PacTrust and the City of Hillsboro; Tri-Met did not assume a leadership position. Their role in the process was better received at Orenco than at Beaverton Creek, where it was mentioned that they were "like a bull in a china shop; not very tactful." The primary observation of Tri-Met, among those interviewed about Orenco, was that there was a detrimental disconnect between the engineers who design the rail line and the planners who promote transit. According to a Hillsboro planner, "Tri-Met was schizoid during the process. One side wanted to see good planning while the other side wanted the trains to run on time via the easiest route." Tri-Met's internal conflicts were frequently mentioned in interviews for both station areas. But at Orenco, they did not stand in the way of creating a shared vision among stakeholders.

# Conclusions and Recommendations

## Summary and Comparison: Implementation at Beaverton Creek versus Orenco

This section explores the major differences between the planning and development processes at Beaverton Creek and Orenco. Baseline characteristics of each station area are identified, with discrepancies between planned and built developments at each station highlighted. A comparison of the implementation processes is presented, which includes: descriptions of respective roles played by PD4T and the TSAP Evaluation, and an analysis of property ownership issues and stakeholder relationships. The effect these factors had on the resulting TOD products is investigated.

### Site Characteristics: Existing and Current Conditions

The Beaverton Creek and Orenco sites had more in common prior to development than they do today. Their initial physical characteristics were quite similar. Both developments were built on flat, undeveloped sites: 190 acres at Orenco and 122 at Beaverton Creek. The land around Beaverton Creek was slightly more developed than Orenco, but both could be considered largely greenfield areas. The two sites have major arterial streets within one half mile of the station. Beaverton Creek has Murray Road running between the LaSalle and Centerpointe developments; Cornell Road divides the developments at Orenco. Both sites are close to major employers providing favorable jobs/housing balance. Beaverton Creek has the Nike world headquarters and Tektronix facilities nearby; Intel's Ronler Acres plant is adjacent to Orenco.

Today, Orenco is quickly becoming a vital community with functional TOD elements: high-density residential units (a mix of rental and for-sale units), "main street" retail, pedestrian amenities and connectivity, and convenient transit access. Future construction phases will provide further enhancements to the station area. Beaverton Creek's status is less encouraging. A portion of the station area has been developed, and density goals were reached within the LaSalle and Centerpointe apartment complexes. However, ideal TOD conditions are not in place at Beaverton Creek. The land use is dominated by residential development with a narrow range of housing types: high to medium density apartments. The retail/commercial component is not prospering, owing partly to its orientation to the station. Business owners indicate dissatisfaction; particularly when contrasted with Orenco establishments, the retail component is relatively unsuccessful. Combined with the lack of parks and open space, Beaverton Creek is left without a focal point, making it difficult to establish a community feel. As emphasized in interviews, the station area is incomplete and its functionality is compromised without inclusion of the acreage north of the LRT platform.

## **Planned versus Built TODs**

Changes between the planning and construction phases of TOD implementation can reflect a problem in the process, and may have negative consequences on the final product. While changes from original plans do not necessarily spell TOD failure, they can be indicative of compromises that may have led to less than ideal results. It is interesting therefore, to note the differences between Beaverton Creek's and Orenco's respective journeys from planned to built TOD.

Many stakeholders and other interested parties believe that both the Beaverton Creek and Orenco station areas had positive TOD outcomes. However Orenco, enjoying widespread attention as a model TOD and recently being named the best master planned community in the United States by the National Association of Homebuilders, is regarded as nearly ideal. Beaverton Creek on the other hand, is seen as not having reached its potential. This is partly the result of differing implementation processes. As the case studies indicated, Orenco was largely built as planned, while Beaverton Creek underwent significant changes from its original master plan. Photographs, maps and site plans illustrate this well. (See subsequent figures.)

Clearly Orenco more closely followed its original plan to create the village atmosphere envisioned at the outset. According to consultants, local employees hoped the site would be transformed into a pedestrian-friendly, neighborly community, with good access to public transportation; the outcome is well matched to these hopes. Changes that occurred during implementation, such as housing construction phasing, were more superficial than substantive. Beaverton Creek, on the other hand, may still develop in to an ideal TOD, but as of yet, its original plan's lofty objectives have not materialized. A large portion of the original planning area sits undeveloped, and the retail portion of the project has had mixed results at best. Other amenities such as a childcare facility and pedestrian enhancements were planned but not built. Primary reasons for these differences in TOD implementation between station areas, relate to property ownership and stakeholder relations.

## **Property Ownership**

Development at both Orenco and Beaverton Creek is currently taking place on only one side of the station, largely stemming from land ownership issues. The south side of the Beaverton Creek station has the LaSalle and Centerpoint apartment complexes, retail space, and a park and ride lot. Northern station area acreage has not been developed. At Orenco, similar residential and retail development is occurring north of the station, while Toshiba's land to the south remains vacant. The Toshiba overlay on this area was designed to allow for possible construction of a new plant. This zoning designation restricts residential development. At Beaverton Creek, the original Murray West plan failed, partly due to Nike's purchase of the Tek Woods parcel. Their primary interest is in preserving the land for possible expansion of their headquarters, rather than carrying out TOD objectives, such as provision of high density housing.





Figure 11: Land Uses Before Station Area Planning Process, Beaverton Creek

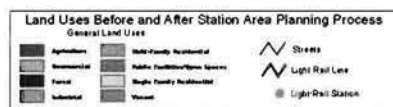


Figure 12: Land Uses After Station Area Planning Process, Beaverton Creek



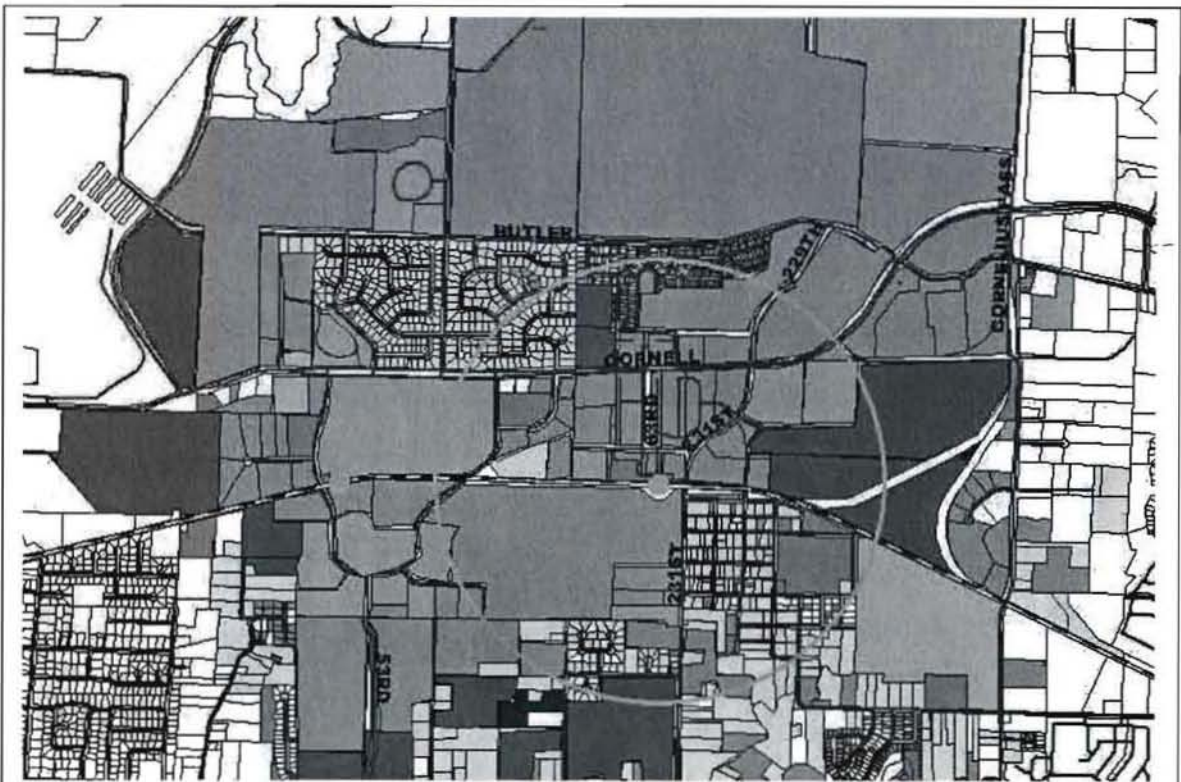


Figure 13: Land Uses Before Station Area Planning Process, Orenco Station

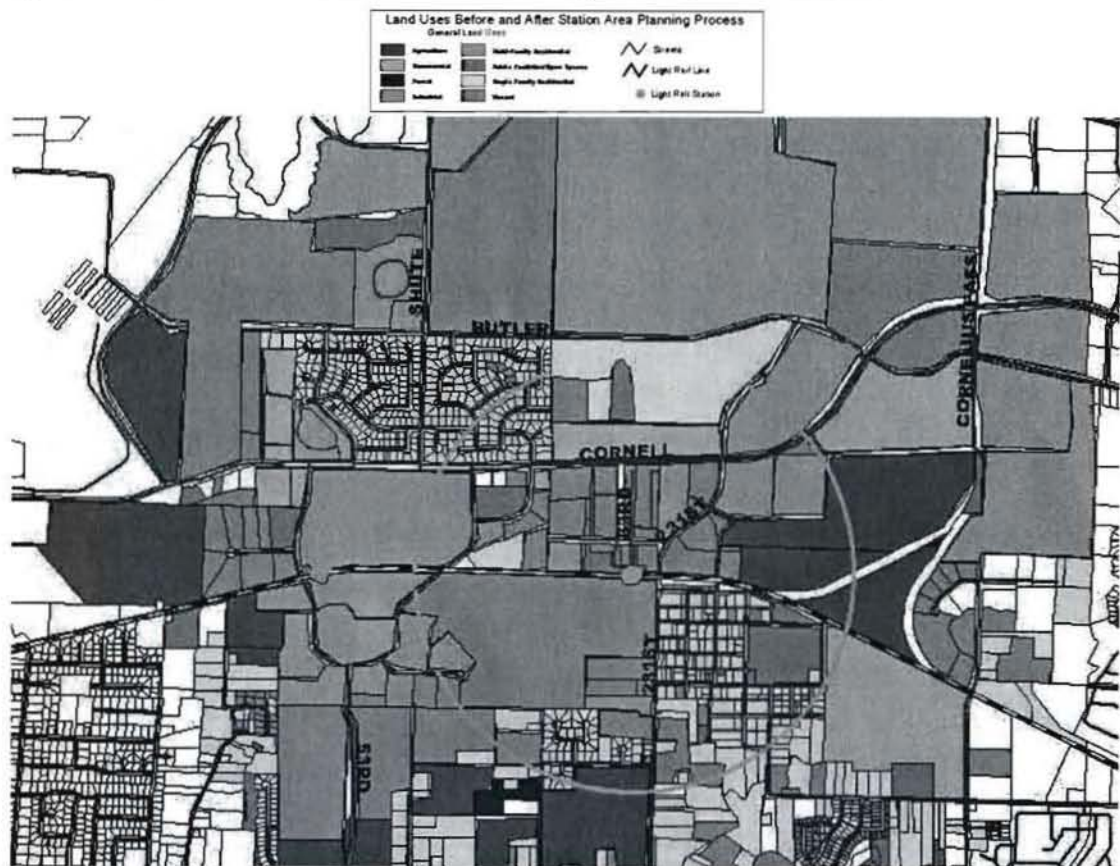


Figure 14: Land Uses After Station Area Planning Process, Orenco Station

Besides contributing to vacancy within the station areas, property ownership has impacted developed land. Transit oriented development requires all the land surrounding the stations to be used for specific purposes. The various land uses must complement each other to create an interactive residential, commercial, recreational, and employment community. If a single parcel is left out of the plan, the overall functionality of the development as a whole can be decreased. TODs are complex in this way. Their requirements are beyond the scope of those more comfortable with standard suburban subdivisions. This complicated and sometimes controversial type of development is one that many landowners, developers, lenders, and local governments hesitate to undertake. Convincing a single landowner of TOD benefits is difficult; convincing multiple landowners to understand the benefits and enter into a TOD planning process is even more difficult. All must then ultimately agree on the specifics of implementation.

At Beaverton Creek, the many stakeholders often had conflicting agendas. The multiple landowners further complicated negotiations. It was difficult to create a station area master plan that met the needs of all involved, particularly given the land ownership changes throughout the process, bringing in new individuals with new objectives. The large parcel north of the LRT platform was purchased by Nike, which has no interest in transit oriented development. While these 74 acres remain vacant, Beaverton Creek cannot reach its potential. Even when development does occur on this site, there is no guarantee that it will advance TOD goals.

The Orenco experience was much different, as PacTrust with help from the City of Hillsboro, owned most of the land north of the station prior to initiating master planning for the area. PacTrust had begun to assemble these parcels in 1989 for industrial purposes. The negotiations were straightforward among a limited set of stakeholders. This allowed for positive, stable relationships to be forged as the plan evolved. When PacTrust sold parcels to Fairfield Development and Simpson Housing Corporation, there was concern that these new developers might not buy in to the master plan envisioned by original participants. At this point, however, their intentions do seem consistent with TOD objectives; Simpson's development has partially fulfilled PacTrust's vision in terms of density, but pedestrian connectivity is lacking.

## **Stakeholder Relationships**

It is important that government agencies involved in TOD planning have a thorough understanding for TOD guidelines and a desire to implement them cooperatively. Shared goals for station area planning and development are crucial. At Beaverton Creek, cooperation towards a shared vision faltered; tension existed between Tri-Met and the City of Beaverton. This became evident when the City of Beaverton sued Tri-Met over promised funds for pedestrian improvements. Tri-Met's leadership role in the process may have directly contributed to poor cooperation among jurisdictions and with developers. Relationships at both station areas were tested over park and ride siting issues. Tri-Met had hoped to place the lots for maximal riders' convenience, while city staff and developers believed land in those locations could be better utilized. Time and funding was wasted relocating park and ride lots. At Orenco, the relationships among staff of various jurisdictions were smoother. This may have been the result of lessons learned through Tri-Met's experience in the Beaverton Creek process. The planning

time frame for the station areas had some overlap, but Beaverton Creek began earlier; Murray West master planning was well underway while only preliminary studies and market analysis were being conducted for Orenco. Many of the tumultuous conditions of Beaverton Creek had been experienced and addressed prior to Orenco planning. The fact that implementation at Orenco was a less challenging endeavor overall (partly thanks to more ideal property ownership conditions, as described above) probably also factored in to the more functional stakeholder interactions. Their roles being better defined, with the City of Hillsboro in the lead, may have also contributed to better cooperation.

Another relationship critical to TOD implementation is between planners and developers. Government planning staff need to be more understanding of the market conditions that landowners/developers must work within. At Beaverton Creek, developers felt the master plan was economically unfeasible. They believed the market would not support a high density, mixed-used development, emphasizing pedestrian connectivity and transit reliance. Developers were also reluctant to agree to parking ratio reductions and disagreed with the insistence that retail be orientated to the station rather than the street. After Nike bought the Tek Woods parcel, corporate representatives and City of Beaverton staff were unable to agree on the siting of residential development. The fate of the Nike property then had to be handed over to the Beaverton City Council. Better relationships might have prevented this and allowed for a more TOD-supportive decision.

The situation was much different at Orenco. The City of Hillsboro and PacTrust split the cost of the site feasibility study in a rare arrangement between public and private sector players. This fostered a more trusting relationship between PacTrust and the City, and minimized doubts of its economic viability. The City of Hillsboro invited PacTrust to participate in the creation of the station area zoning. Developers therefore were accorded a direct role in the master planning process; they voiced concerns about code flexibility and residential densities, and were able to see them resolved in a way that considered market pressures without compromising TOD goals. PacTrust requested that Washington County change the comprehensive plan designation of Cornell Road from seven lanes to five so that the Orenco community would not be dissected by a major arterial. The City of Hillsboro, supportive of this measure, hired traffic consultants to determine feasibility and identify transportation alternatives. Study results led Washington County to agree to this change. (This does not represent a change in the TOD "planned-to-built" implementation process. The Board of County Commissioners first considered the transportation system plan amendment that would narrow Cornell Road five lanes in 1995, a year before the Orenco Master Plan was submitted.)

The symbiotic relationship between the government agencies who want transit oriented projects at the stations, and the developer who needs to make a profit is crucial to the implementation of TODs.



## Application of TOD Guidelines and TSAP Evaluation

As was described earlier in this report, Tri-Met staff produced *the Planning and Design for Transit Handbook* (PD4T), and they were also responsible for leading the TSAP evaluation effort. Both projects were aimed at guiding and improving the TOD implementation process. (See p. 12 for more complete descriptions.)

Previously, detailed recommendations such as these projects provided were not widely available. While broad-based TOD research was relatively plentiful, guidelines and analysis specific to the Portland metro area were limited. To an extent, Westside LRT station area planners were starting from scratch, aside from the assistance offered in PD4T and the TSAP reports. Although neither was intended to be directly applied to the Beaverton Creek and Orenco TODs, few alternatives existed. The assumption, therefore, is that they were relied upon to some degree and valuable in some way. Stakeholders interviewed were asked about this issue of applicability. What follows is a discussion of key consistencies and discrepancies between actual and recommended TOD implementation measures, including stakeholders' perspectives on the usefulness of PD4T and the TSAP evaluation.

### PD4T

The final chapter of PD4T, "Guidelines for Development near Light Rail", which would have been directly relevant to Westside station area planning, was never written. However, plans for Orenco and Beaverton Creek were both consistent with PD4T's other guidelines related to transit-supportive land use and site/building design. The basic recommendations for increasing residential density, transit access, pedestrian connectivity, and mixing complementary land uses materialized in both plans.

Stakeholders involved in Orenco and Beaverton Creek implementation felt that PD4T was used more as a foundation for master planning than for the specifics of site design. According to one planner interviewed, "Tri-Met's guidelines were nice but we were using many other tools. Their guidelines were no major influence. They were helpful in the sense that they pushed the limits about what could be done and what should be done." Another noted, "The (PD4T) principles helped in a general way. They were not a driving force, only a foundation; the specifics were not followed. The guidelines weren't imposed on the developer but they did help in the initial plans."

The document did play a role in planning for the two station areas. It was influential in having set a broad regional TOD framework. PD4T is an educational tool which has contributed to local TOD advancement. This was Tri-Met's hope: to educate planners in the region on TOD implementation so that it could take place without being forcefully guided by rigid directives.

Primarily for grant application purposes, TOD architects at Fletcher Farr Ayotte (FFA), condensed PD4T down to a one-page checklist. As stated in the July 1, 1994 CMAQ request for Murray West (which later became Beaverton Creek), the "project is being designed in response to the principles of transit-supportive development outlined in Tri-met's handbook, *Planning and Design for Transit*. The Murray West (plan) is in substantial compliance with these principles." The same can be said of the Orenco master plan. But the built results differed; whereas Orenco has largely adhered to its original plan, the Beaverton Creek station area is less consistent with TOD guidelines



than its former plan, Murray West, had been. Shown below is a matrix of PD4T principles applied to the initial plans and final outcomes (built and currently planned) for Beaverton Creek and Orenco. The TOD elements listed are adapted from FFA's synthesis of PD4T elements.

## PD4T Applications at Orenco and Beaverton Creek

TOD Element	Beaverton Creek		Orenco	
	Original Plan (Murray West):	Built or Currently Planned:	Original Plan:	Built or Currently Planned:
<b>Density:</b>				
Establish a pedestrian district within a ½ mile radius of the light rail station.	√√	√	√√	√√
Provide residential densities of at least 15 dwelling units/acre.	√√	√√	√	√
Establish a retail/commercial center as the pedestrian district focus.	√√	√	√√	√√
Provide a minimum 10,000 SF retail space within 1/8 mile.	√√	√	√	√
Provide 5% public open space.	√√		√√	√√
<b>Land Use Framework:</b>				
Locate transit stops adjacent to the core community.	√√	√	√	√
Locate the park and ride lot to serve adjacent area patrons and pedestrians.	√√	√√	√√	√√
Create mixed housing densities and price.	√		√	√
Locate parks and plazas as focal points of development.	√√		√√	√√
Reduce parking standards.	√√	√√	√√	√√
Configure parking for minimum impact on pedestrian areas.	√√	√√	√√	√√
<b>Circulation Framework:</b>				
Avoid crossing or use of major arterials within a ½ mile of pedestrian districts.	√	√		√
Design connector streets in pedestrian districts for auto, bike, and pedestrian use.	√√	√	√√	√√
Locate visible pedestrian routes along streets	√√	√√	√√	√√
Provide a coordinated system of bikeways.	√√	√	√	√
<b>Design:</b>				
Design streets for safe pedestrian crossings to transit stops.	√√	√√	√√	√√
Provide comfortable waiting areas at transit stops.	√√	√√	√√	√√
Narrow local streets to slow traffic.	√√	√√	√√	√√

Rating system: √√ represents a good rating, √ is fair, no symbol indicates poor application or absence.

As the table indicates, plans for both Orenco and Beaverton Creek were largely consistent with PD4T guidelines; the built results however, differed. The loss of TOD elements at Beaverton Creek from its original plan has negatively impacted its

functionality. Whereas Beaverton Creek was scaled down from its original plan, Orenco more closely followed its plan and became a more complete TOD.

### TSAP Evaluation

A primary purpose of the TSAP evaluation was to analyze the planning and development process for the Eastside MAX line and develop recommendations for future TOD efforts. It was a broad approach toward implementation improvements: TSAP's implications for future programs apply more to Westside LRT station area planning as a whole than to individual sites. Although detailed recommendations for specific sites were not included, the overall lessons learned through TSAP can be analyzed via individual TOD implementation processes. Listed below are some of the key recommendations which arose from the TSAP evaluation, and a description of their applications at Beaverton Creek and Orenco.

1. *Set clear goals.* The objective of transit oriented development is to integrate transportation and land use planning to create efficient, sustainable development patterns; a TOD is a growth management tool designed to change land use patterns and travel behavior over time. This is not an easy goal to quantify, particularly at the individual site level. On a corridor-wide basis, the desired outcome can be envisioned; specific details however, are trickier to define. This is particularly true when there is outright disagreement about these details and their purposes. At Beaverton Creek, the various stakeholders had goals that often conflicted. Key players at Orenco on the other hand, had clear, shared objectives to work towards. This helped guide the project towards a positive outcome.
2. *Rezone for higher densities.* The importance of supportive land use regulations to enable and encourage TOD projects cannot be overstated. Zoning to allow for transit-supportive density goals was essential at Beaverton Creek and Orenco.
3. *Offer deal-making assistance and incentives.* "Let's make a deal" was not the motto of Beaverton Creek stakeholders; indeed, an opposite attitude seemed to permeate through the process. TOD planners cannot hope to push for increased density and decreased parking ratios without offering something in return. Developers will not tolerate risky business practices without strong indications that they will ultimately pay off or direct incentives up front. Neither was offered at Beaverton Creek. TOD implementation requires leaders with the political and financial leverage to provide give-and-take conditions. This was lacking in both the Beaverton Creek and Orenco planning processes. At Orenco, other strongly favorable conditions served to compensate, while Beaverton Creek's list of unfortunate circumstances was already too long to overcome this disadvantage.
4. *Consider developers' perspectives.* TSAP participants stated that the program needed "less 'P' and more 'D'"; a shift from the intensive planning efforts which often excluded developers' concerns towards a more cooperative approach, so that "P" could actually lead to "D". At Beaverton Creek, some property owners felt alienated and railroaded in the master planning process. Their density and parking ratio worries were largely ignored, resulting in interrupted implementation and a less desirable TOD product. Orenco had the benefit of enlightened developer sponsorship. It was easy to consider PacTrust's perspective because, to a great

extent, it was already consistent with TOD objectives. However, the fact that they were included in the planning process and intimately involved in decisions, lent extra insurance of their cooperation. The outcome reflected the benefits of seeking developers' input and taking their needs seriously through direct action.

5. *Target stations with the best opportunities.* According to Tri-Met planners, the Westside LRT alignment decision was largely based on taking best advantage of development opportunities. Shifting the line slightly north from previous alternatives allowed for better TOD potential along MAX; the vacant sites for Beaverton Creek and Orenco were captured in this way.
6. *Involve community leaders to build a coalition of support.* As with developers, the needs and concerns of local residents and business owners must be considered in TOD implementation. Representatives from communities impacted by a potential project should be brought into the planning process; their participation will foster support. At Orenco, this was successfully accomplished; citizen input was sought and nearby employers were surveyed. Public involvement was encouraged in planning for Beaverton Creek, however a sense of ownership and attachment to the project was not achieved within the community. Likely, this was related to the effects of shaky stakeholder relations and lack of City of Beaverton participation. Orenco implementers were better able to present a unified front to community leaders.
7. *Think long term.* Realistic expectations and patience are crucial to TOD implementation; land use patterns and travel behavior will not change overnight. It is necessary to be pragmatic in setting goals for station area planning and development, and be willing to accept interim improvements which may be less than optimal. For instance, in some cases it may be necessary to accept less than optimal density or parking standards. These concessions could have helped the Beaverton Creek process. As it stands, a long-term approach might foster the eventual success of the station area if Nike's parcel is developed properly. Less patience is required at Orenco, where many TOD ideals have already materialized. In both cases, as with all TOD projects, it is important not to jump the gun in defining success. Their benefits are not immediately tangible, but the future payoffs, in terms of growth management, will become apparent.

Overall, the lessons learned through the TSAP evaluation seemed to be put to practice in Westside LRT planning and development. Analysis of the Beaverton Creek and Orenco station areas indicate the usefulness of TSAP measures/recommendations, because there is a correlation between the extent to which they were applied and the extent to which each TOD was successfully implemented.

## **TOD Toolbox: Elements for Successful Implementation**

A key objective in analyzing the Beaverton Creek and Orenco TODs, was to identify factors which may contribute to effective implementation. Four major themes emerged: the need for a strong lead agency, a shared vision, supportive development regulations, and public support and incentives. A limitation of the findings explained in this section is that they are based primarily on two case studies rather than a more comprehensive investigation. Background research however, indicates that there is reason to believe that these toolbox items are in fact broadly applicable.

### **Strong Lead Agency**

*"A regional effort would support the development of TODs better, possibly with Metro taking the lead." – City Planner*

TOD implementation can be vastly facilitated by a strong lead agency with sufficient funds, political leverage, and sympathy for/attachment to the TOD cause. As is true for any planning process, clear direction is vital and must be backed with the power to enact it. Strong leaders cannot bypass the necessary coordination among TOD stakeholders; a dictatorial approach would fail. However, well-defined, appropriately-assigned leadership roles can minimize conflict and enable cooperation.

As the case studies indicated, communication breakdown among stakeholders had negative consequences. Leadership issues were revealed in the analysis of both station area planning efforts. Interview data related to Beaverton Creek was particularly enlightening on this subject. Many felt that the conflicting agendas of multiple property owners, developers, planning staff and various consultants, were responsible for the pitfalls of the initial master planning process. The attempts of Tri-Met's station area planning coordinator to effectively lead the process were not successful. Stakeholders specifically mentioned that the Tri-Met representatives pushed too hard, had unrealistic expectations and were generally difficult to work with. It was stated that Tri-Met refused to compromise; other jurisdictions and developers felt continually pressured to revise their objectives while Tri-Met was unwilling to bargain. But in terms of TOD implementation, bargaining to allow for less enlightened development standards may result in an undesirable, un-TOD-like, TOD. Tri-Met was faced with educating other stakeholders on TOD elements, without being respected as an educator or retaining the power necessary to effectively educate. The mismatch of funding, political jurisdiction, skill and experience made for confusing and ineffective leadership roles.

The question of "who's in charge here" should ideally be resolved prior to the commencement of a station area planning endeavor. And the answer should be an agency with the necessary financial/political ability and appropriately skilled staff. Tri-Met may not be that agency. Although planning staff is extensively knowledgeable about and personally invested in the TOD cause, executives have not historically been fully supportive of their development efforts. Even in the event that internal consensus were reached towards stronger land development policies and programs, it would remain difficult for staff to put them into practice. Tri-Met lacks financial and political influence needed to operate in this capacity. According to many Beaverton Creek and Orenco planners interviewed, including some current and former Tri-Met employees and



a range of other stakeholders, "Tri-Met does not belong in the real estate development business."

Tri-Met has difficulty justifying land acquisitions for purposes other than transit right-of-way. The former joint development manager at Tri-Met described the uphill battle he faced in pushing the boundaries of legal authority and traditional transit agency functions. In his interview, he claimed that Westside station area planning and TOD implementation was impaired by Tri-Met's lack of power to take charge of land development activities along the alignment. Also at work was an 'unwillingness on the part of upper management who "didn't want to get involved with land development; didn't want to think long-term; only knew what they had to do to get the train running by its due date." The conflict within Tri-Met between TOD planners and light rail engineers further stands in the way of a unified agency direction. As stated in another stakeholder interview, "Tri-Met needs to make up its mind sooner or later about what its goals are." And those goals need to be consistent with their ability to pursue them.

Metro may be in the best position to assume a leadership role in the TOD implementation process; at least for now. Former Tri-Met employees, experienced and knowledgeable in joint development projects and station area planning, currently staff a new program at Metro, which seems promising. They apply for grants to purchase land near MAX, issue RFPs to developers, and then review submittals for consistency with TOD objectives. Land ownership and financial leverage from grants provide the bargaining chips necessary to lead developers towards transit-supportive site plans. This program is in its early stages; currently only one project is underway, but indications are that it will be successful and pave the way for similar endeavors in the future.

Having Metro at the helm of regional TOD efforts would be an appropriate measure initially, because it allows for a match between power and skills which has not existed in the past. But in the future, local jurisdictions need to step in. Balancing regional goals with local preferences is an important factor in the successful development of TODs. While overall growth management goals may be dictated at the county, regional, or statewide level, implementation takes place locally. Many local jurisdictions resent the imposition of development standards by outside agencies with little understanding or sympathy for local considerations. As long as regional goals and planning mandates are being met, the actual design character and development details of TODs should be in the hands of local governments. Local planning staff then, must be informed and enlightened on TOD policy in order for it to be properly implemented.

## Shared Vision among Stakeholders

*"You've got to determine a vision for the area and figure out what is politically palatable. The main point is to build a community, not just a design. It's all about long term vision."*  
- Tri-Met Planner

A unified front of local jurisdictions and regional planners is essential to the successful implementation of transit oriented development. Landowners and developers that face conflicting requirements from various levels of government will become frustrated and might lose interest entirely. Many developers and planners expressed this in interviews, describing the lack of coordination between jurisdictions, and within Tri-Met. One developer indicated that after contending with the complex layers of requirements, he gave up on the process and sold his property.

It is especially important to present a seamless process when multiple property owners are involved. A developer that has a strong interest in TOD implementation may have the stamina to struggle through complicated requirements and restrictions. Most developers, however, can not be expected to display this degree of commitment to a TOD project. Likely they will abandon the process and seek alternative options when it appears endless, futile, and costly. The fate of the Murray West Master Plan demonstrates how losing one developer can sabotage an entire planning process.

Significant effort is required on the part of government agency staff to prepare and present uniform parameters to developers. Disagreements and conflicting regulations should be addressed and resolved before entering in to station area planning processes. This advance coordination will result in a more attractive development package. Already, typical developers are skeptical of TOD feasibility; this will only worsen if it is clear to them that there is discord among jurisdictional stakeholders. Potential TOD developers must feel that they are facing a rational process with reasonable people working towards shared objectives.

Once the relevant jurisdictions have defined the TOD objectives and devised an implementation strategy, developers need to be convinced to participate in this shared vision. In some cases, such as Orenco, demonstrating the merits of TOD projects will be less of a challenge than in others. PacTrust felt that the Orenco area presented a unique opportunity to do something beyond the typical suburban subdivision, and were willing to take risks for the sake of creating more sustainable land use patterns. However, most decisions to invest in TODs will be based solely on the expected financial outcome, rather than a desire to make a charitable contribution towards growth management. PacTrust's faith that efficiently developing the area in accordance with TOD guidelines could be as profitable as following a more standard, sprawl-promoting approach, is rare. Few developers have reached this level of enlightenment.

With the success of transit oriented developments like Orenco, and a more streamlined planning and regulatory process, it should become easier to convince developers that that building TODs can be lucrative. Market studies indicating that TOD properties will sell would further cultivate and strengthen developer buy-in. Tri-Met or Metro should consider sponsoring such studies; national research is available but local evidence would be more compelling. Because most developers will not be motivated towards

TOD projects as the right thing to do, it is important to convince them that they are the profitable thing to do.

Nearly every planner interviewed identified a shared vision as essential to successful TOD implementation. The best plan in the world is worthless without unified supporters. The evidence from Beaverton Creek and Orenco seems to bear this out. With stakeholder enthusiasm and cooperation, barriers to effective station area planning can be overcome. Without this shared vision, the tremendously challenging process of TOD implementation is much less likely to be successful.

## **Supportive Development Regulations**

*"Flexibility is the key in the development of TODs. The gap between development reality and planning goals can be very wide. Government planners need to live with some goals not being met in the short term. Development code needs to be more consistent with market realities and across jurisdictions; the lack of consistency between rules, regulations and code at various levels create difficulties." - Developer*

TODs require strongly supportive development regulations. Zoning and design code must be changed to allow for mixed uses, increased density, and lower parking ratios, prior to the start of a transit oriented development process. It is advantageous for local jurisdictions to engage in a collaborative code development process with developers, property owners, and professional consultants with experience in mixed-use and transit oriented development. This is not typically an option, but should be considered when possible. Outside consultants can introduce a perspective of market realities to development code, increasing the chances of achieving developer buy-in, and decreasing the length of the later approval process.

Failure to account for market realities is a pitfall in the development of TOD-supportive code, and one of the primary complaints of developers. Attempting to push the envelope in terms of desired outcomes such as increased density is acceptable when applied generally. But mandating a minimum of 45 units per acre when the current market only supports densities of 20-25 units per acre makes the TOD a risky proposition to developers and lenders, unless incentives are offered. According to professionals in the field, density does not need to be forced with code, it will increase naturally over time as land values increase, infrastructure is built, and other development takes place.

It is also important to be flexible in terms of residential density patterns in a TOD. Locating higher densities near the light rail station is logical, but jurisdictions often mandate that the density configuration be developed in concentric rings or a "layer cake" fashion. As long as overall density goals for a site are met, and density is generally higher nearest the station, it may be more effective to allow varied design concepts rather than insisting on one pattern of development. The City of Hillsboro allowed PacTrust to develop Orenco in this manner, resulting in an award-winning community.

Using code to prescribe particular types of retail or commercial development in the pursuit of mixed uses also increases the chance for failure. Starting a TOD with little or no retail, or with office space instead of retail, may be preferable to mandating retail



space and having it fail. Phasing retail development in over time as increased development and population warrants may be a better guarantor of long-term TOD success. Beaverton Creek is an example where a developer placed retail against its better judgment, at the request of public agencies overseeing the project. Businesses at Beaverton Creek are already feeling financially compromised because there is not yet enough density or light rail patronage to support them.

Although one goal of a transit oriented development is to reduce reliance on the automobile, it is unrealistic to completely ignore its importance, especially in terms of the success of retail/commercial TOD components. The population density is simply not present to support most businesses in a former greenfield TOD site without additional patronage from automobile users. Siting retail establishments with limited parking and little or no visibility from adjacent streets is a recipe for failure. It will take time to change the transportation habits of the population. Until the point is reached where transit ridership increases dramatically or an adequate population density is reached in the TOD vicinity, businesses will continue to rely on automobile users. Development code should be transit-supportive without ignoring this reality.

The type of retail present in a TOD is an important determinant of its success. Development codes should give preference to businesses that are useful to light rail passengers, reduce automobile trips, and provide convenience to nearby residents. These would include establishments selling items which are easily carried or consumed on the premises, e.g., specialty shops and bakeries/restaurants, and services such as daycare or dry cleaning. Products that are heavy or purchased in bulk are obviously likely to remain reliant on automobile trips.

## **Public Support and Incentives**

*"Public help is needed to create TODs in order to control the land development pattern."  
– Economic Consultant*

*"Public ownership of land or financial incentives and assistance would improve the development prospects of TODs." - Developer*

The unique characteristics of TODs may require public financial support or other incentives in order to achieve desired goals such as increased density and decreased surface parking. Transit oriented mixed-use development is more expensive and riskier for developers and lenders. Infrastructure costs are higher in TODs due to smaller lots, more streets, and increased connections. A greater variety of building types also increases construction costs because of a loss of economies of scale and construction templates. Additionally, some jurisdictions still require steel construction for multi-family dwellings above a prescribed height. This too, increases the cost of constructing high density housing.

Developers have traditionally focused on a single development type. Mixed-use development requires expertise in a variety of construction types, with which a single developer is often not familiar. Learning new construction and development methods raises the cost and risk to a developer. And bringing multiple developers with varying areas of expertise into a TOD project increases the difficulty of coordinating efforts.

Although the financing climate is improving, lenders have been reluctant to provide loans to TOD projects for many of the same reasons. They also find it more difficult to estimate returns for TODs due to the mix of products and the lack of a successful track record. The variety of uses also means the real estate market is often in a different phase for each product, further complicating development and financing. For example, when the market for multi-family housing is excellent, the market for office or retail space may be poor.

The question is how to encourage developers to look past such difficulties. Remedies to these problems exist, but they all suffer from the problem of obtaining financing. Providing property tax abatements for increasing density or including low-income housing is one method of offsetting development costs. Tax credits or a shared parking structure fund could mitigate the additional expense of structured parking. Increased federal or state grants for TODs is another way of alleviating the additional costs of increased density. Funding or splitting the costs of doing an independent market analysis of a proposed TOD project is an effective way of offsetting start-up costs and proving to potential investors that a development is feasible. Minimizing development soft costs through sharing tasks such as environmental impact studies, and preliminary engineering and surveying, is another way of supporting TOD implementation.

Public ownership of a potential TOD site may be the most effective way of ensuring transit-supportive development. Obtaining the funds to purchase the land, and overcoming public skepticism about supporting private developers are major obstacles. Public control of the land would allow jurisdictions to issue RFPs specifying the unique requirements of TODs. If a potential TOD site is underdeveloped, it may also be possible to establish an urban renewal district and utilize tax increment financing to offset development costs. Another alternative is to sell the land to a developer at a low price, effectively reducing overall development costs. Public/private partnerships such as those pursued by the Portland Development Commission would allow greater control over the final TOD product. Finally, grants of seed money tied to transit supportive conditions, could encourage private groups with TOD goals to purchase land for future TOD development.

## **Broader Implications: Application of Local Lessons Learned to Other Regions**

This section contains concluding comments on obstacles and opportunities for future TOD projects both in the Portland area and in other regions. Also provided are suggestions for further TOD research and investigation, as well as a brief comment on the future of transit oriented development.

### **TOD Obstacles and Opportunities**

The Portland metropolitan area has unique characteristics in relation to station area planning and development that will not apply to other regions. The influence of a regional land use planning agency can facilitate TOD implementation. Most metropolitan areas do not have a strong regional government with land use authority to oversee the creation of TODs. The Portland area is fortunate to rely on Metro to help to shape an overall vision for TOD, and hold local jurisdictions to that vision. Without regional leadership such as this, TOD implementation becomes more challenging.

Related to the Portland area's strong regional government is the culture of planning that exists in the state of Oregon. Statewide land use laws contain planning mandates not required elsewhere. All cities and counties in Oregon must complete comprehensive plans and update them periodically. As a result of this directive, local jurisdictions may be better prepared to handle the complex issues related to TOD than jurisdictions outside of Oregon.

The alignment for a large portion of Westside MAX, through large, undeveloped tracts of land, presented both opportunities and constraints. The greenfield sites along the Westside MAX line made it relatively easy to acquire large parcels of land for new development. Few, if any, future light rail lines will have this advantage. Regardless, building in undeveloped areas has its drawbacks. Citizens are often more resistant to new development in greenfields than to redevelopment of built up areas. While higher densities in built up areas make land acquisition more difficult and costly; the higher property values better enable higher residential densities and can support costly, but space-saving, structured parking. An urban environment will also typically contain retail/commercial services within walking distance, whereas greenfield TODs will have to provide these elements from scratch. Additionally, the commercial portion of a TOD may not be viable without residential density nearby. The higher densities found in urban settings also better support transit ridership.

In addition to a strong planning tradition, Oregon has a history of environmental conservation. Residents have struggled to protect the state's natural resources and quality of life. This has meant two things for transit oriented development:

1. Voters have supported large investments in alternative forms of transportation, such as light rail, in order to avoid the environmental problems that have occurred in other states. Because of the success of these investments, Oregon is in a better position than most states in terms of traffic congestion, air pollution, and sprawl.
2. Because of this enviable position, Oregonians are perhaps more willing than residents of other states to make sacrifices for the sake of sustainability and



livability. Citizens in the Portland area are relatively willing to invest in growth management strategies, including transit-supportive development and related measures, to protect their investments in the future.

In many ways, conditions in the Portland metropolitan area more conducive to effective TOD implementation conditions elsewhere. Other regions can look to Portland for direction and advice, but it will likely be challenging to follow. As this report has indicated, local recommendations have been difficult to apply locally; it is expected that they will be additionally difficult to apply elsewhere.

## **Recommendations for Further Research and Investigation**

During the research process, important issues arose which are outside the scope of this project and merit further consideration. Some of these topics are discussed below.

1. In many TOD projects across the country, the commercial/retail component has been the most problematic aspect of development. Often the density level in place when businesses open is not high enough to support retail on its own. As was discussed, this appeared to be the case at Beaverton creek. Future research should study ways that retail could be phased in to TODs over time. Perhaps retail space could be reserved initially as flex office space, and then be converted to retail as supportive densities develop. Improvements to this portion of TOD implementation are critical; the case studies indicated the importance of retail in terms of creating a functional mixed-use development.
2. A primary TOD goal is to reduce reliance on the automobile by encouraging transit ridership. In order to achieve this, TOD plans often call for reduced parking ratios. Developers recognize that transit cannot meet all transportation needs, and that many trips will continue to be auto-based. They fear that low parking ratios will limit their ability to attract residents and retail tenants. A possible way to address the TOD goal of increasing transit ridership, while maintaining respect for the automobile's role within the transportation system, is car sharing. Car sharing allows people to use an automobile when their travel requirements demand it, but not be burdened by car ownership when other modes, such as transit, are preferable. If only a small percentage of TOD residents participated in a car sharing program, parking demands would be significantly reduced. This might alleviate developers' concerns over limited parking ratios. More research should be done to determine the role car sharing might play in future TODs.
3. Transit oriented development practices aim to mitigate numerous regional growth and quality of life concerns. Their primary objective is to efficiently link transportation and land use planning to create more sustainable development patterns over time. However, an important area that TODs have failed to adequately address is affordable housing. The high cost of building TODs combined with market realities have limited the housing types available in existing TODs. Currently, the majority of TODs cater to middle and upper income households. Less affluent families and individuals who could benefit from convenient access to transit and other TOD amenities are largely excluded by this practice. Ways to include more affordable residential units into future TOD projects should be investigated further.

4. Repeatedly mentioned in stakeholder interviews was the heavy expense associated with the construction of TOD projects. A way these costs might be reduced is through eliminating the requirement that developers provide parking spaces for residential projects. It is estimated that a parking ratio of two spaces per unit raises construction costs by as much as 25%.<sup>7</sup> Particularly in the suburbs, developers typically seek to increase parking provisions rather than decrease or eliminate them, as the case studies indicated. However, allowing the market to dictate parking needs rather than forcing developers to meet requirements, might entice them towards TOD projects. By cutting parking out of construction costs, TOD housing units could become more affordable. Independent parking structures might better serve residents, who would have the opportunity to determine individually whether to pay for the added costs of parking. Residents whose transportation needs could be met with alternative modes, e.g. transit, car sharing, etc., could apply this savings towards rent. More research is required to determine the impact that separating housing and parking costs would have on affordability and development feasibility.
5. Oregon is fortunate to have the only elected regional government agency in the country. Very few regions elsewhere have strong metropolitan planning entities to guide the TOD implementation process. In lieu of an organization like Metro, a private, non-profit TOD advocacy group may be the best resource for bringing TOD projects to fruition. Such organizations could offer skills and expertise, as well as negotiate deals between stakeholders. They could also be involved in assembling financing mechanisms. Further investigation is needed to determine how TOD advocacy groups could be created and funded, and what specific role they should play in the TOD planning and implementation process. It may be beneficial to rely on agencies such as these, even in places where strong regional direction already exists, including the Portland metro area.

## **The Future of TODs**

Growth related problems such as traffic congestion and sprawling development patterns represent some of our most pressing urban challenges. Because of this reality, transit oriented development will continue to be an important growth management strategy, both in the Portland metropolitan region and across the country. This project's analysis of station area planning and development processes was limited to two TOD case studies. However its substance is believed to transcend those two developments. The information and recommendations contained in this report can be applied to future TOD projects within the region and beyond, and might result in eventual improvements to the future landscape.

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<sup>7</sup> Litman, T. Parking requirement impacts on housing affordability. Victoria Transport Policy Institute. Victoria British Columbia, Canada. Oct. 23, 1995.

# Appendix

## Secondary Data Sources

A complete list of research materials consulted for the production of this document is provided below. Some of the documents are cited in the report; others were not quoted directly but contributed to an overall understanding for the subject matter.

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## Interview Participants

The following individuals were interviewed for this project, and their perspectives were captured in this document. The list is organized according to professional category.

### Planners

GB Arrington, Parsons Brinckerhoff, (Formerly with Tri-Met)  
Rajiv Batra, Urban Design Collaborative, (Formerly with City of Hillsboro)  
Hal Bergsma, City of Beaverton, (Formerly with Washington County)  
Irish Bunnell, City of Beaverton  
Brent Curtis, Washington County  
Ralph Drewfs, Oregon Department of Transportation, Region 1: Light Rail Engineering  
Marion Hemphill, City of Hillsboro  
Leo Huff, Oregon Department of Transportation, Region 1: Land Use Planning  
Kim Knox, Tri-Met  
Henry Markus, King County Department of Transportation (Formerly with Tri-Met)  
Debbie Raber, City of Hillsboro  
Mary Weber, Metro  
Phil Whitmore, Metro (Formerly with Tri-Met)

### Developers

Bill McCrae, Costa Pacific Homes  
Richard Loffelmacher, Pac Trust  
Mike Mehaffy, Pac Trust  
Will Macht, Macht and Co.  
Scott Matthews, Trammell Crow Residential  
Greg Specht, Specht Development Inc.

### Lenders and Financial Consultants

Jerry Johnson, Hobson Johnson and Assoc.  
John Peterson, Bank of America  
Ed Starkie, Leland Consulting

### Retail/Corporate Representatives

James Bocci, Merchant of Venice (Orenco)  
Doug Drowley, Off the Vine (Orenco)  
Massoud Ghaffari, Prego Pizza (Beaverton Creek)  
Jim Petsche, Nike (Beaverton Creek)

### Architects

Don Arambula, Fletcher Farr Ayotte  
Bob Yakas, Robert Yakas Design

# Interview Questions

As was explained in the Methodology section of this report (see p. 16), sets of questions were developed for each category of respondents. In addition to targeting specific areas of interest within each category, question sets had overlapping topics. Examples are listed below.

## Common Questions (Asked of Most Stakeholders)

- ◆ What was your involvement in Orenco/Beaverton Creek TOD implementation?
- ◆ Who were the other key stakeholders?
- ◆ What was Tri-Met's role? How did they influence the project? Are you familiar with PD4T? Was it useful to the TOD project?
- ◆ What are your general observations about Orenco/Beaverton Creek? Is it a success? What contributed to its success (or lack of success)?
- ◆ How would you improve the TOD implementation process?

## Developer/Planner Questions

- ◆ What were the reasons for siting the retail and housing where they are?
- ◆ What changes were made in the design of Orenco/Beaverton Creek from the initial plans to the project's completion?
- ◆ How did zoning regulations and transit oriented guidelines impact design and construction?
- ◆ What was the housing market like during the TOD design stage? What has been the response since the completion?
- ◆ What type of financing/grants were used for the project?
- ◆ How does the financial community feel about financing mixed-use and transit oriented developments?
- ◆ Did the presence of multiple government entities present difficulties in coordinating and implementing TOD design?
- ◆ Is there as much interest as anticipated in Orenco/Beaverton Creek? Are rental prices as expected? Who are the residents?
- ◆ What role does LRT access play in residents' decisions to move to Orenco/Beaverton Creek?

## Lender Questions

- ◆ How do you feel about financing transit oriented and mixed-use developments?
- ◆ How do you feel about the retail/commercial aspects specifically?
- ◆ How would you improve the design of a transit oriented development to make it a better investment?
- ◆ How would you feel about loaning to future transit oriented or mixed use developments?
- ◆ What were the market conditions when Orenco/Beaverton Creek were built and what are they now?

## Business Owner Questions

- ◆ What are your general observations about Orenco/Beaverton Creek? Functionality?
- ◆ What attracted your business to this location?
- ◆ Are you meeting financial expectations?
- ◆ Are you receiving the amount of patronage from light rail riders and pedestrians that you expected?
- ◆ Do you feel your business has enough visibility from light rail? From the street?
- ◆ Would you prefer to be in a different location within the TOD?

## Interview Data

Listed below are stakeholder opinions on some of the key aspects of the planning and development processes at Beaverton Creek and Orenco. This is a condensed report of viewpoints rather than an exhaustive transcript of interview content. Statements representing the full spectrum of perspectives have been included, and are organized by stakeholders' professional category. Much of this data has been paraphrased from raw interview notes. These are not necessarily direct quotes.

### Local Planners

We worked with the developer in creating specific language in the zoning ordinance, "station community zoning". We negotiated with Metro and Tri-Met on density.

We worked with Fire, Building, Engineering Departments ever since the preliminary plan stages in the area of new public work standards. Street lighting, width, storm, water quality, building code issues, streets turning radii (curves) were issues the city dealt with.

We were in it up to our eyes, ever since it was a gleam in the President of PacTrust's eye.

PacTrust was concerned that the town center be tied north/south of Cornell Road. The County's Transportation System Plan (TSP) called for widening of Cornell to 7 lanes. This was not acceptable to PacTrust. They didn't want to have cut Orenco Town Center in half. The city resolved this issue. The city did a series of east/west road connections on the City TSP to take the pressure off of Cornell Road.

Transit oriented density puts a high concentration of people around transit. This is different from a friendlier walking environment. Other components of TODs are building frontage, parking behind, lots of glass, use of weather awnings, bulb outs, and limited parking.

The Orenco project was a success. PacTrust is a very large and wealthy group. They didn't have to apply for outside financing. No banks were involved. There were no roadblocks. Important factors of success were the flat and clean ground, single ownership, good auto transportation, close to large employers, close to Sunset Highway, southern portion of the area had storm and sewer, and good cooperation with City of Hillsboro.

(Orenco) All the retail is farther than ½ mile from the station. But from a marketing perspective (massive studies) there had to be inexpensive and convenient shopping nearby. People simply don't buy at small retail shops outside the central city, Portland. Plus when the trains are full-peak hour traffic people are going simply from work to home, or point A to B. They do not have time to shop except perhaps for quick impulse buys from shops at the station.

Grocery shopping happens when it's convenient. People set aside a block of time, drive once a week and buy groceries for the whole week. Plus, small stores at the station can't compete with large retail prices. People aren't willing to pay inflated prices for goods they can buy ½ mile away.

Orenco was built from the beginning with Tri-Met's Transit Oriented guidelines in mind. However, this was a unique development and unique site. Yes, they helped. However it required a lot of negotiation, much more than Portland. Orenco has narrower streets, different setbacks, mixed-use. All of these things trigger changes within the building code. Other examples include streetlights that have a franchise utility agreement. The city wanted cheap, Tri-Met wanted pretty and PGE wanted efficient and durable. This was a huge discussion. Narrow streets, utilities don't want to be in or under street, and density, tall buildings and mixed use call for different building codes.

(Orenco) The vacant land to the NW is owned by NEC. They have decided to sell the site and are waiting for a buyer.

As a whole the density is a 45 people per acre. The city let PacTrust put the density in as they saw fit, as long as they met the overall density requirement.

The biggest issue is that just because there is zoning doesn't mean they will come. We can only push the market so far, looked what happened to the Round.

Orenco is the best we will get. It's a community and goes far beyond transit density. We can't build a entire project entirely on density because people live there. Peoples' lives consist of more than just how they get



from one place to another. Development and design do not equal community. One main issue is that transit density doesn't accommodate some groups, i.e. children, elderly, handicapped, churches. More attention should have been given to these groups. It could end up that Orenco will be an exclusive community—gated. Out of 250 homes (detached) normally you'd find 300 some school age children (1.5/2.5 k-12 per household). PacTrust reports that Orenco has 25. The development is short by a dramatic number.

(Orenco) The whole exercise was started as a regional partnership with Tri-met, locals, ODOT. Tri-Met, Metro, ODOT provided the grant funds to begin the process. ODOT had other funds. Basically these three agencies provided the forum and acted as a catalyst to bring everyone together. This group focused on planning along the corridor.

Yes, I think Orenco is a success. The property is selling at a good rate. The first products are quality (North of Cornell Road), the brick stuff and homes. The Simpson property is disappointing. Everyone wishes they could unring that bell. PacTrust didn't want to take the entire risk—couldn't do it. Through Code, Covenants, and Restrictions (CCRs) they retained some approval but this didn't ensure quality that is the same as PacTrust.

The real reason PacTrust was successful is quality. This seems to be identified by the purchases. This community is unlike other subdivisions in the city. The people are out there, walking in the parks and walking in the streets. They are interacting with each other and patronize the local retail stores. It's a friendly atmosphere.

Some of the retail business owners spontaneously sold old homes and bought homes in Orenco. They ended up moving their entire families to the community. The community is starting to see more children.

(Orenco) The vacant land to the northwest was supposed to be residential but the city didn't like the proposal. Simpson backed off with no design. Simpson hasn't finished 1201 or the walkups (brownstones). Simpson could resell back to PacTrust or come forward with another design. What they did was not quality. Nevertheless what they submitted matched with the land use zoning.

Yes, it is realistic to assume residents will walk the ¼ to ½ mile. This came from early studies of satisfactory service from the transit stop. Original wisdom was that they would walk farther to light rail than to a bus stop. Buses break down and must suffer through traffic. However, light rail is usually on time. If you look at the entire trip, door-to-door you will see that most people have a time budget which they are willing to spend on light rail. If it fits within their budget they will take LRT.

What wasn't done was wedding cake the project as Tri-Met recommends, i.e. put your highest density immediately next to transit and then your next highest. The city didn't care where they put the density. The city allowed the developer to put the stuff where they saw fit.

(Orenco) The project turned out all right. The reason is that we worked with owners and adjacent community and offered flexibility rather than rigidity or prescriptive. Tri-Met handbook was too prescriptive.

Density for density sake doesn't work. Just look at other projects—driving force was to get as many units in a location as possible. The final force was the design. This doesn't accommodate what the market likes and doesn't lead to a sense of community. When you do this you risk creating the next ghetto—because of a tendency to put starter homes or lower quality homes in dense areas.

Some developers operate under the notion that when you don't have much land, build cheap, in order to keep the price low. There is no reason why TODs have to be at the bottom of the hill. You can build with mixed use and different product types, like PAC Trust did. In Orenco there is \$250, 000 stuff which is top of the line and then there is the more affordable stuff, i.e., the duplex or triplex apartments. The duplexes are 90 square feet and go from \$140, to 150 to 160. There is not much land but this is exchanged for individual commodities such as private patio.

The Federal government required Hillsboro to do planning—goals to be achieved. They were pushed to do it. They hadn't done it before LRT. Tri-Met provided the money. Tri-Met carried the message to the region—Metro supportive. Tri-Met was critical of the work. They pushed the work and invested time/energy and skills. They were NOT the lead, but shaped the lead.

In a big picture view Orenco was a great success. It's popular. They (PacTrust) tout themselves as a great place. However, the product is unfinished so we won't really know. It's progressive public policy by the City of Hillsboro about how land should be viewed. The big entities made it successful, streetscapes, green

ways, and the buildings height, bulk, and type. All of these were great experiments in an environment of suburban sprawl.

Tri-Met's guidelines were nice but we were using many other tools. Their guidelines were no major influence. As a general manner—We were developing these tools. We were getting it translated into real world setting. They were helpful in the sense that they pushed the limits about what could be done and what should be done. Getting stuff adopted and accepted by the region and by developers and the market is a real test.

People will walk 1/2 mile to the LRT station. Empirical data shows this.

Tri-Met was one of the funding agencies for the city of Hillsboro to do the station plan. Hillsboro worked with the property owners and residents. Tri-Met helped in ways like creating a model code and advocacy. Tri-Met participated with the larger Westside planning process that included the agencies of Beaverton, Hillsboro, Portland, and Washington County. Tri-Met helped at these meetings.

Commercially it was definitely a success. Regarding the design, other industry groups have acknowledged it is good design. The developer learned a lot in the process of creating Orenco, they realized that they could build mixed-use.

No major changes. Plan allowed for a great deal of flexibility. Some elements have changed. There was an overbuilding of a certain types of apartments in a price range, so these will be built at a later phase. There have mostly been changes in the phasing of when parts are built. This is in response to market demands.

Tri-Met's TOD design principles helped in a general way. They were not a driving force. People know what they have to do, the economics of the development drive the project. There was little public subsidy. The guidelines weren't imposed on the developer, but they did help in the initial plans.

Tri-Met has no authority over land uses in Hillsboro. Metro has authority, but they were not going to use it. They just wanted to see the land put to the best use.

Lots of flexibility for the developer. Almost all the details of the station plan were negotiated with the developer before they were implemented. The developer had lots of input in creating the ordinance.

When the line was being laid out, there was little thought toward land use, only designed as a rail line. This was a federal process. They are now thinking more about land use as they design rail lines.

Orenco was originally designed with a parking lot in front of the rail station. This is a very bad thing. This is not a good integration of rail and land use. Tri-Met likes to promote transit, but they are behind in some ways. There is a disconnection between the engineers who design the rail line and the planners who promote transit. Tri-Met makes poor partners, but good advocates. Hillsboro had to jump through hoops to move the parking lot. That was the only public subsidy to build the project. It took nine months and \$300,000 to move it. What a waste.

Hillsboro worked with the developer to survey Intel about what their employees wanted. This gave the developer more confidence that if they built something different it would work.

Tri-Met basically established the alignment of the light rail line. Tri-Met's participants were mainly railroad engineers, not planners or designers. They were only concerned with laying track through the path of least resistance and least development. They actually wanted fewer stops and the stops closer to roads and accessible to automobiles. Tri-Met originally wanted the Beaverton Creek stop at the Murray Road overpass to increase auto access. The city talked them out of it. Tri-Met engineers want the park and rides, and maintenance centers close to the stations for maximum convenience. This is one reason there is no development close to the stations. Tri-Met wanted the BC park and ride directly in front of the stop. The city convinced them to move it to the present location. City planners would prefer to have development between the park and ride and the stop so people have to walk through retail and commercial development before reaching the stop. Tri-Met engineers have the opposite agenda of planners. Beaverton tried to get the light rail line through a higher density area. The BC station area was mainly wetlands, forest, and farm ground, and lacked services. Much of it was originally zoned campus industrial.

Beaverton Creek is incomplete without the inclusion of the Nike site, although there are still areas to be developed. Believes BC will function better over time as density increases. Retail is poorly sited and lacks

visibility from the street. The retail was sited to be visible to the light rail station. It probably will not be successful until more development occurs and on-street visibility increases.

The Beaverton Creek development changed from a model TOD town center to mostly housing. The city required Trammell Crow to include commercial space, and helped to convince them to increase density nearer to the station.

The city of Beaverton had started rezoning for higher density and transit-oriented uses in 1978-80, ahead of Metro's plans. The city did not have to change much to comply with the Regional Framework Plan. Beaverton was familiar with Tri-Met's TOD guidelines, but the city did not specifically implement them. The city's zoning had already adopted some of the basic ideas.

"The light rail siting process was the worst public process I was ever involved in." Tri-Met as very uncooperative, especially the engineers. Tri-Met had totally different criteria, objectives, and agendas, than other government planners. It was a complete failure by Tri-Met to understand other agendas. Tri-Met planning staff was not involved much in the negotiation. Tri-Met takes the credit for TOD design and use, but it was really the engineers who made the decisions for engineering reasons. Tri-Met did not decide to do station area planning until late in the process when siting was already complete. The city could not get Tri-Met to buy in during the initial stages.

Nike apparently did not consider the possibility of employee housing on the Tek Woods site. Nike originally had 28 issues of contention. Twenty-six of them were solved, but Nike would not budge on the issues of housing and public access to the station from Jenkins Road. Nike was extremely opposed to any possible public access to its campus. The city tried to convince Nike to sell a portion of the property for housing near the BC station. The city let Nike off the hook as far as requiring 15% of the Tek Woods site being set aside for housing, because enough housing was being built elsewhere at BC. The city felt a fight with Nike could drag on for years. It amounted to negotiating a political win-win. The BC light rail stop was sited at the present location to provide direct access to Nike's main entrance. Nike did not like the idea.

The stations are not located in optimum spots. Beaverton wanted them in higher density areas and/or along TV Highway. City planner agendas do not make sense to others. It is a rare developer or land owner that sees light rail as an advantage. Affordable housing was not much on the radar screen for the station areas. The city made a policy decision not to offer incentives for TODs. Developers did not care too much about light rail. They did not see it as an amenity. There was some discussion with Nike and Tektronix about transit connections and shuttles, but they were not too interested. Most financial institutions do not care about light rail because it does not add value or increase the chances of success for a development.

The city zones then sits back and waits for a developer. Public investment is needed in order to control the land around station areas. Then the city or another public agency could set guidelines, put out an Request For Proposal (RFP), and select the best developer. Another option is to form urban renewal districts or public/private partnerships like PDC. Tri-Met could also look into forming public/private partnerships to develop TODs. Cities have been too passive about development, but funding for development is not currently available. It is important to make sure every agency has the same goals for transit-oriented development.

The city of Hillsboro took the lead on Orenco and drafted an agreement with the county. The process started in 1990-91, and model regulations were drafted in 1993. Key players were the city of Portland (as consultants), Metro, and Tri-Met (especially Henry Markus). Greg Specht was involved at Beaverton Creek but seemed resistant. The city of Beaverton was less involved. Tri-Met received funding for initial planning at BC. Tri-Met helped find developers, and provided funds for planning and educational issues at both sites. Tri-Met should not be the lead in TOD planning. Henry Markus was fairly aggressive. The placement of maintenance facilities and park & rides eliminated a lot of prime developable ground. Tri-Met was schizoid during the process. One side wanted to see good planning while the other side wanted the trains to run on time via the easiest routes.

My initial expectations were that development would happen more quickly at the new TODs.

Zoning and TOD guidelines helped to improve TOD design. It was a challenge to convince developers to go with higher densities. I had hoped for density figures of 24-40 units per acre.

Beaverton Creek is a decent development but subject questions the placement and prospects of the retail portion. Orenco is a good development, but the housing could be better designed and have better pedestrian connectivity.



Orenco was originally conceived as a standard subdivision before light rail. Believes PacTrust originally wanted to locate big box retail development next to the station.

Planners and developers need to be educated more about TODs, and increased density. There were few good examples of good TODs at first. The right developers have to be brought in. Tri-Met needs to make up its mind sooner about what its goals are. A regional effort would support the development of TODs better, with possibly Metro taking the lead. Metro could consolidate properties and issue RFPs. Alternatively, redevelopment agencies could be established for prospective TODs and utilize tax-increment financing for funds. A private group with TOD goals could also pursue a consolidated development. Implementation is a greater problem than policy.

Major property owners were part of advisory committees at the station areas, more so at Orenco. Sequent and Tektronix showed interest and participated to an extent in the development of the Murray West master plan.

Planners and developers were more concerned about density than affordable housing. The 1995 legislature reduced property taxes for high density housing, but Measure 47 reduced general property taxes. As a result, Washington County did not want to offer further tax incentives because of the loss of revenues.

## **Regional Planners**

At Orenco the retail was placed strategically. There isn't any south of the tracks. If a community was to develop there it would suffer from lack of commercial uses.

Today's market might not support all that Tri-Met wants. In some ways you want to start far away from the station and then wait 5-10 years. This reduces the risk. The idea is to start slowly and build up. It is not a bad thing that the entire area is not yet built out.

The transit oriented guidelines were not intended for light rail station development. They were intended for subdivision, bus and Transportation Planning Rule stuff. Some of the locals used them as a starting point. This was a good idea. However, from Tri-Met's view they were never intended to serve as guidelines for station area plans. One chapter, light rail was never written.

Tri-Met didn't get a grasp on the retail at Beaverton Creek. It suffers. The retail is not working. It's worse than having a 1/2 empty parking lot. Tri-Met compromised with parking at Beaverton Creek.

More density is not the answer. Density must be combined with community.

Tri-Met recognized what each of the players needed to get out of the process. You've got to determine a vision for the area and if it is politically palatable. The main point is to build a community not just a design. It's all about a long term vision.

(Beaverton Creek) It was good that the highest density was built near the station, and it goes down as you go away from the station. But overall Tri-Met wanted the density to be higher. At the time Trammel Crow was scared of building 50 units/acre, but three years later when the project was built they should have gone higher.

Beaverton Creek has a competitive advantage being on light rail line, especially now that the tech village has been overbuilt.

(Orenco) A success. It could also have been built at a higher density, and sustained more commercial. Turned out great for being originally zoned industrial and having an industrial developer.

Got Orenco model from a specific development plan from a public/private planning partnership in California. The plan went into much more detail than usual. It described the site in great detail, looking at the specific aspects of where to locate sidewalks, specific pedestrian amenities, and the site's architecture. Hillsboro thought the plan made a lot of sense, and tried to carry out that type of planning.

PacTrust worked closely with the City of Hillsboro to create the Orenco Station Plan, so that 24 hours after the city adopted it, PacTrust submitted their station master plan, and it was approved. Metro and Tri-Met were involved in the process.



PacTrust asked not to increase Cornell Road to seven lanes. The City of Hillsboro hired transportation consultants to find an alternative to expanding Cornell Street. The consultants found that if 11 improvements were made throughout Washington County the traffic network would function better than if Cornell was widened. This is very radical for a developer to ask this, and for a city to hire a private consultant, and for the County and ODOT to agree. This made PacTrust feel better about having buildings adjacent to a four lane street.

Orenco was nearly built as planned. The City of Hillsboro, PacTrust, and Metro discussed higher densities, but they came to an agreement to build 18 units/acre for the apartments north of Cornell Road. PacTrust then raised the density on their own, and everyone felt better.

One of the earlier plans had linear greenspace areas, but Hillsboro didn't consider these parks as they were too narrow and they wouldn't maintain them. So the parks were widened to what they are now.

(Beaverton Creek) The retail is located where it is because there is no parking on street in front of LaSalle. There is some on the turnout in front of the development. Front building was the highest density, making it the easiest place to locate the commercial.

Tri-Met and the City of Beaverton did not get along for a while. One part of it was that Tri-Met was going to put in pedestrian amenities at a station, but due to a funding cut back was not able to. The city of Beaverton sued Tri-Met for a loss of the promised pedestrian amenities, but lost.

There is more than one Tri-Met, while the city of Beaverton was at odds with parts of Tri-Met, the TOD development group was well respected.

(Beaverton Creek) Nike was just finishing their plan to expand to the North when they realized that they were running out of land so they bought the Tek Woods option from Greg Specht. Nike wanted insurance that they could expand.

The willingness of public sector to assemble large amounts of land would help the process. Metro is running a program to put together property, design what will be built, and pass it off to a chosen developer. This is better than using regulations.

Public and private sectors didn't know what was feasible. Didn't understand what "urban" meant around the light rail stations. What does "urban" mean? Not like Portland, but higher density, small blocks, sidewalks, lighting, hopefully lower parking ratios, less building setbacks, and maybe parking structures. Hard to get the planning staff, city council, and residents to understand. There is good urban and bad urban, we need to show them that this can be good urban.

Design standards are key. They need to be worked out in great detail with the property owners, developers, and residents to determine what are the minimum requirements.

At Orenco the public and private sides split the costs of doing an economic evaluation of the site. This convinced PacTrust that it would work. This is very special as planning departments typically don't do private sector economic evaluations of a site. PacTrust had this research done many times, and it told them to landscape the front and back yards of the units. Even though it was at a great cost, they did it because of the closeness of the buildings and the neighboring windows. This way it was assured that it would be beautiful from the opening day. Many people with large yards hate to upkeep them.

It is very special that the public sector participated in market sector analysis to prove to other members of the public sector, such as the developer, and the residents that this would work.

Started with station area planning that cost \$4.5 million. It came from Westside building funds, Tri-Met funds, and federal funds. Essentially paying for the work done by the city of Hillsboro and other agencies to do the station area plans. Tri-Met initiated station area master planning, more at Beaverton Creek than at Orenco.

Tri-Met designed access to the Beaverton Creek station, created a footprint of where the development will be. Land closest to station was preserved for more intense development in the future. Land in between LaSalle and the LRT Station is owned partly by Tri-Met and partly by Greg Specht.

Too early to tell if Beaverton Creek and Orenco are successful. Beaverton Creek has good density, still waiting for land owned by Tri-Met and Greg Specht near the station to be developed. Orenco is a more

ambitious project than Beaverton Creek. To meet the Region 2040 criteria, Calthorpe and Associates were hired to create theoretical plans for Orenco Station. They put together a plan.

Tri-Met worked to get \$500,000 in CMAQ Flexible funds for pedestrian walkways and the streetlights.

Tri-Met wanted to have a low public profile but have a high amount of involvement.

Retail needs automobile traffic, and has to be on Cornell Road. Transit can help mold development, but car is king. Orenco has two types of retail: 1) Traditional auto development down the street to the east. The developer is guaranteed to get payback, 2) The Town Center is more of an amenity to sell the community, and create a community. The developer spent more money than they needed to build the town center. It is used for marketing the community, like a golf course.

With lots of agencies involved it raised the bar. Each agency can look at what the other cities are doing. "Look at what the city of Portland is doing?" It didn't slow the process, no negatives.

Nike said station area planning doesn't apply to them. Said they would leave the state. They actually talked to an Economic Development Agency in Colorado about moving their headquarters.

Nike had two issues with developing the Tek Woods, public access and the types of land uses. The city of Beaverton wanted to meet the 2040 plans of density by putting a lot of high density development near the Beaverton Creek station, to limit putting it in other places throughout the city. Nike wanted to put jobs near the Beaverton Creek Station. They argued that this is still transit supportive. They won this argument as the city agreed this is a good use of the land.

What is happening on the west side is very special. It worked out well, better than the planners hoped. Contract with the Federal Government for building the light rail from 185<sup>th</sup> to Hillsboro was justified by land use changes. This is the first and only time this has happened in the U.S.

The timing of the urban growth boundary filling up, timing of real estate market need for higher density, building of light rail, and the availability of capital all worked out very well. A very special situation.

Metro has two roles to play in TOD planning and implementation in the region. The first role is to pass on federal funds for station area plans like Orenco Station and Murray West. Local jurisdictions would not have the resources to do quality TOD planning without help from Metro. However, it is not Metro's role to take the lead on individual TOD plans. Rather this role should be taken by the local jurisdictions. Cities and counties have the most interest in the success of a plan and also have the most direct authority to use to ensure its success.

(Metro) The fact that Tri-Met took the lead in the original Murray West planning, and not the city of Beaverton, was one of the reasons for that plan's failure. Tri-Met was received like a new step-mom that the kids didn't want to take orders from. Tri-Met did not have the stakeholders' respect, and was unable to get them to see eye to eye. Instead of this type of direct involvement in TOD planning and implementation, Metro's second role is to look at the big picture—to coordinate the various TOD plans with each other and with Metro's 2040 Growth Concept.

In past years, this meant that Metro had to work to convince local jurisdictions of the importance of the key principles of transit oriented development to quality of life. Now this task has for the most part been accomplished. The next task for Metro is to help to find a balance between these goals and natural resource protection and enhancement.

## **Developers**

Tri-Met was very active in land use planning. It was really a joint planning effort. It was a good relationship between Tri-Met and Trammell Crow and a good experience. They both approached the process with a win-win outlook. Henry Markus, Tom Walsh and others were deal driven, knew how to negotiate and be entrepreneurs, and were trying to get things done. They understood thinking outside the box and how to package the applications for federal funding.

Generally the presence of multiple government agencies did not complicate the development process for Beaverton Creek any more than what is typical. The city of Beaverton was mostly cooperative. However, Beaverton's development and transit overlay code were poorly written and very dated, especially Section 79. The city originally wanted every type of mixed use to be present on every parcel in the TOD overlay

zone. This was highly impractical and bore no relationship to the functioning of the station area as a whole. Beaverton was also in the process of rewriting it, so in some cases it was unclear what code applied. The lack of consistency between rules, regulations, and code at various levels created difficulties. Trammell Crow was originally going to build the park and ride, but the issue became too complicated. Various property lines had to be moved.

The developer felt confident going into the process and was very proactive about promoting its goals for the project. All the parties in the process were prepared to make reasonable compromises. Tri-Met's relocation of the park and ride was helpful. The elimination of the consortium of other owners by the time Trammell Crow became actively involved also improved the process of negotiations.

Some of the decisions made at Beaverton Creek were politically motivated and were fundamentally flawed from a market standpoint. Tri-Met needed to show higher density could be built next to the station. That was not economic at the time and developers could not do it today because of increased land costs. They could absorb the "density penalty" at the time because the land was reasonably priced and rents were comparatively higher. The retail was a giveaway in exchange for doing the rest of the project. The location of the retail violates most of the fundamental principles of retail siting. It would have worked better as an adaptive use. Convert some of the space to retail when additional development increases the market base at Beaverton Creek. Trammell Crow agreed to retail because it had to play the game a little to satisfy mixed use requirements. The current retail situation is not good. Ironically the businesses facing the park and ride are doing better than the ones facing the rail station. This is in part because they brought customers from a previous location and in part because some are office-oriented and do not rely on walk up customers.

The day care center and multi-family housing was not built on Tri-Met's triangle near the station because the development was too small and complicated to be profitable, especially after the application for CMAQ funds was rejected. The market timing was also wrong. Trammell Crow has recently discussed building more housing on part of the park and ride with Tri-Met, since it is only at 40% capacity. The day care center concept may be more viable if combined with redevelopment of the park and ride. There is a demand for the service and it would add vitality to the area.

Flexibility is the key in the development of TODs. The gap between development reality and planning goals can be very wide. Planners are getting too far ahead of the curve and pushing goals beyond practicality. The process needs incremental steps to deal with the complexity of many issues, especially land use. Planners/government needs to live with some goals not being met in the short term. For example, some developers are now comfortable building at densities in the teens and low twenties, but many jurisdictions are trying to push to 40 or above. This is not financially feasible and will not be for the foreseeable future. The only way for this type of density to be developed is through subsidies or tax abatement. If Beaverton had a tax abatement program like Portland and Gresham, Trammell Crow may have built at a higher density. However, no subsidies or grants were available so Beaverton creek was purely a market rate construction. Development code also needs to be more consistent with market realities and across jurisdictions. Some cities such as Hillsboro are much more laissez faire than others.

Two main problems with the Murray West plan. The master plan had to be unanimous among the property owners. George Crandall of Fletcher Farr, and Tri-Met were trying to push the envelope too far by trying to eliminate a reliance on cars at BC. You can't tell the market what it should want. Tri-Met was also trying to show it could generate development money. Tri-Met and Crandall also wanted to decrease block size and reduce parking ratios. Decreasing block sizes increases development costs. There were also issues with building orientation. For example, Tri-Met wanted a Haggen's grocery store planned for north of the park and ride to face away from Murray Road toward the housing development. There was not going to be enough density/residents at BC to ignore auto traffic for the retail development.

Tri-Met actively participated in the Murray West planning process. They worked to get desired standards for parking and density.

Parking ratios have been reduced so much under TOD code that it severely limits the ability to commercial to develop near the station. It is forcing labor intensive e-commerce type businesses to locate elsewhere. They need 6-8 spaces per 1000sf, but the maximum allowed is four. Commercial parking requirements could only be satisfied with structural parking, which is too expensive to build in most cases.

The parking lots at BC are well located but the retail is not. The effort at Beaverton Creek led to less fighting and a better design at Orenco. Murray North is decently designed, but not dense enough, but Murray South unattractive. Light rail will be more appreciated in 2030 because it takes a long time to change people's habits. Murray West would have worked if Tri-Met had been less aggressive.

The City of Beaverton supported developers at the time. The city caused some heartburn over trees and forested wetlands. Financing of Murray West was not going to be a problem, several parcels had already been sold to developers. You do not need development around stations to promote rail--- people are still going to rely on their cars.

Light rail has been absolutely no benefit to the business park at BC. No one gives a rip, and it financially impacts developers because they can not develop with sufficient parking. Does not know of any nearby workers at BC who utilize light rail.

Public agencies should allow the market to dictate the product it will support. Tri-Met does not belong in the real estate development business. Another problem is stakeholders with conflicting goals.

Public ownership of land or financial incentives and assistance would improve the development prospects of TODs. Does not want to see eminent domain used, however. Planners have to realize people are going to remain auto-oriented, especially in the suburbs. Density is not enough to support business and retail without auto traffic.

PacTrust owned the land at Orenco Station, and choose Costa Pacific to develop it. Architect Leelverson of Iverson and Associates did the plan. Concept was derived from a lot of market research; focus groups, mailings, trying to determine who will buy there.

Believes Tri-Met was supportive of the development process. Helpful with providing a one year transit pass to the new residents of Orenco.

Orenco Station is a success from a design standpoint and a commercial standpoint. The design won the Homebuilder's award and the 1,000 Friend's of Oregon award. From a commercial standpoint, it is selling faster and at higher square footage prices than other developments in the market. The Costa Pacific development is selling at \$135/sq ft compared to the market's \$100 to \$110/sq ft.

The development takes advantage of a good jobs/housing balance with all of the employers in the area.

A survey of the residents on what they liked most about the development showed the #1 "community, #2 access to light rail, and #3 architecture.

When the project was built there were no guidelines in Hillsboro, the developers got to be part of writing the ordinances. It was a good process. Everybody was on the same page, and the market was good as well. It took a while, but that was understandable.

When the project started the market was fine. There was not much of what is being built at Orenco in Hillsboro. There were mostly typical large lot single family homes.

If there was no process then people could build whatever they want. It is a process that you work through. The city of Hillsboro and Washington County were very cooperative.

By building Orenco Station the process was improved for the next time. Can't think of anything major that could be improved.

Light rail is definitely an asset. The resident survey showed it was the second most important thing. Good as a marketing tool.

PacTrust started purchasing the 190 acres that make up Orenco in 1984. Station community north of Cornell was the failed subdivision of Ronler Acres. Had to purchase the lots one at a time -- many of the owners had moved and could not be located. The City of Hillsboro used eminent domain to take unclaimed lots. PacTrust traded lots on what became Intel's Ronler Acres development to the city for lots to form a contiguous Orenco parcel. The City also formed an urban renewal district for Orenco. In 1990 Metro designated Orenco a town center and it was rezoned as such. An interim protective ordinance preserved the area for station area development.

Two-year planning process involved the state Metro, Tri-Met, Washington County, and the City of Hillsboro.

Tri-Met was cooperative in some aspects. Tri-Met runs a shuttle to the station and subsidizes a one-year transit pass for new residents. But, Tri-Met operations (engineers) are very tunnelvisioned. They need to



reinvent their procedures and be flexible, instead of setting goals and then demanding acquiescence. Often had knee-jerk responses to change requests or challenges. Developers did not appreciate Tri-Met's stubbornness about moving the park & ride lot away from the end of the town center parkway. They felt Tri-Met should have had more planning sense about the placement of the park & ride. PacTrust was upset it essentially had to waste a \$500,000 CMAQ to move the park & ride when it could have been utilized doing something more constructive.

The presence of multiple agencies made the process a challenge. Governments wanted to be very prescriptive. The biggest challenge was over density. It was difficult to obtain flexibility concerning density formulas. Eventually cut a deal with Hillsboro and Metro for the final density figures. It was a very interactive and complicated process, which made it more expensive.

PacTrust was invited to the table by Hillsboro to help construct TOD code. Steve Pfeifer of Steel Rives helped craft the code. The need for flexibility was discussed, and was instrumental in the project. Things such as maximum setbacks were adjusted. Toshiba had an industrial overlay district for its property south of the rail line. It did not allow housing within 500 feet of the edge of its property. This prevented housing from being built next to the station. Also had a long fight with the County (18 months) about keeping Cornell at 5 lanes. PacTrust had to threaten to abandon the project.

The developer initially had guarded expectations about Orenco. It provided both opportunities and constraints. Had to carefully manage risks. Felt everyone was basically on the same team, but different goals and agendas were present. PacTrust had never done housing before, only industrial or commercial. Parcels designated for multi-family housing were sold to Fairfield and Simpson Housing, as they had national experience in such developments. PacTrust formed a joint venture with Costa Pacific for the single-family parcels. Fifty percent of the housing is attached housing in order to hit density targets. It was a risk as there was not much history (market) in the area for attached housing. It was also a big financial risk to go with higher density because it often requires steel construction. Until recently much of the Portland ??? did not allow wood construction for multi-family structures above a certain size. Steel construction is more expensive. The small blocks and small lots (3800sq ft) also raise the cost of providing infrastructure because of tighter spaces, more connections, and increased engineering costs. Density ranges from 7 1/2 - 8 units/acre - 22 units/acre. The developer felt 28 units/acre was probably the maximum it could profitably go at Orenco.

Orenco is developing a good community feel. PacTrust is thrilled with sales and leasing. There was a good overall public/private relationship with Hillsboro. Housing was wanted south of Cornell, and was expected to be mostly in place before the town center was started, but the apartment market became overbuilt before Simpson started building. Simpson converted the one parcel to condos (Club 1201) because of the poor apartment market. They are not believed to be selling very well. Only incremental changes were made to the site plan once the initial master plan was completed. Thought was given to locating the town center south of Cornell but the Toshiba overlay district prevented it.

PacTrust financed the development of Orenco itself. PacTrust is backed by the State of Washington public employee retirement system and other private investors. Financing for TOD-type developments is an evolving field. Ten years ago financing was nearly impossible to get. Five years ago lenders were still scared. Currently a sea of change is taking place as lenders are becoming more willing to finance TODs/mixed-use. The process is getting refined. There are legal issues with some government funding such as Fannie Mae. It does not allow more than 20% retail in a mixed-use development. There are also difficult legal issues when condos are involved.

Light rail is viewed as an amenity at Orenco, but not a major source of transportation, although 22% of residents claim to use it daily. It will take time for people to break the car habit. It was necessary to make the retail automobile-oriented along Cornell, in order to draw enough customers. A concession was to put the parking mostly behind the buildings. Being next to rail does not automatically make it a great place to live. Rail does little for retail. With increased density you need amenities to offset the lack of space.

Jurisdictions can be very prescriptive; they tend to think of formulas not development character. They need to increase their flexibility and recognize an Orenco-type development is a partnership and a very intricate and interactive process. Going into the process, the costs, amount of infrastructure and the market response were uncertain. Often a problem of city councils getting excited about snags in the process and causing others to start balking. Jurisdictions also wanted to strip parking requirements to a bare minimum when the reality is in a suburban location people still want two cars. Structured parking costs \$12,000 - 15,000 per space, making it impractical for most developments.

Thinks PacTrust regrets not doing housing south of Cornell itself. In hindsight they would have kept the Simpson and Fairfield properties to retain more control. They were not as cooperative as hoped. The properties were sold for risk management purposes. Would have liked the light rail closer to Cornell, and maybe more housing variety. Connectivity could have been better and more advantage taken of the park.

## **Economic Consultants and Lenders**

Pioneering. Harder to accurately predict how they will perform. TODs are risky and a challenge. When the developer has near design approval, they come see a short-term lender for the construction loan. The lender monitors the project. Then a long range security bank comes in after the project is complete and takes over the loan. Similar to a long range home loan. Important to work with a qualified, competent developer, as short-term lenders are dependent on the long term lender taking the loan of their hands. The permanent lender must agree that this is a viable project.

It takes a developer with a lot of experience and skill to make a transit oriented development work. It is hard than a normal project. Lenders are selective with who we work with.

Lenders underwrite the whole project. They don't separate the commercial and residential. It is not clear if permanent lenders will separate the uses in the future. The multiple uses complicates things.

If the commercial is done well it will work. If it is designed and developed in harmony with the residential they will work together as it is easily accessible for the residents.

Things naturally evolve. This is a forced evolution that is making TODs happen faster. TODs can be more expensive. If you only build one type of use it is expensive. People are usually good at one thing. Sometimes the total can be worth less than the individual parts. (Meaning that it costs a lot to build the residential and the commercial, and together they are very expensive and the final TOD or mixed-use development may not be worth it.)

Permits can be very expensive. TODs and mixed-use developments may require government assistance to be built. Parking density is very expensive, how are developers going to recover their costs in the suburbs? Tax credits or other assistance programs would be helpful.

We lend to people more than to projects. It really matters who it is, and their past performance. TODs and mixed use require more talent, ability, and tenacity. Developers are generally hard working and intelligent.

(Beaverton Creek) Initially the market was tight with fair rents. Now it is overbuilt, with higher vacancies. It was actually built prior to light rail. Well located for light rail, Nike and the Tech industry. It is a nice flat site. Light rail not a huge factor, but got investors interested. Light rail hasn't changed the rents, but good for marketing.

The city of Beaverton is difficult to get entitlements from.

Tri-Met required overlay zoning, but they had only a little role. They designed the station area plan, but it didn't happen. It was also economically unfeasible. The project would have built with or without Tri-Met. Tri-Met wanted 39 units of mid-rise, high density construction, parking below, and concrete construction. This was too expensive, the market couldn't support this kind of construction. It is a good project in a tough market.

City of Beaverton is tough to get approvals from.

At the start of the Orenco development process there was an industrial land slump. Prices had declined from \$70,000 per acre to \$35,000 per acre. The commercial and retail real estate markets were poor as well. The housing market was also in a slump but was showing signs of recovery.

Research showed rents around station areas could be higher. Density drives transit. TODs attract more women than men, and also higher income managerial and technical professions. People will live in denser developments near light rail. It is also perceived as an amenity by most residents.

Believes PacTrust originally planned a standard subdivision of less than four units per acre, and big box retail near the station. Developers in general thought higher density was nuts. Developers prefer to build at

three units per acre to maximize profit. PacTrust also resisted higher density. DickBuono (PacTrust Vice President) was skeptical, he wanted a traditional low risk development. PacTrust President Peter Bechen saw an opportunity to develop a town center with higher densities, and hired Fletcher Farr Ayotte to design it.

Orenco is hitting its density targets but wishes developers had taken the opportunity to develop at higher densities. Research indicated density at Orenco should have been as high as possible, 40 units/acre or more.

It was good that the big box retail was moved from near the station to farther down Cornell. The for-sale units at Orenco are selling well, but rentals are not. Rental apartments are overbuilt in the Sunset corridor. It is also risky to put retail in before residential units are in place. A 20,000 SQ grocery store needs a density of 150 residents per acre to survive without automobile traffic.

Tri-Met's role was looking over shoulders and setting density targets to qualify for federal funding. Intel had not started their Ronler Acres development yet, so they were not consulted during the initial planning of Orenco.

Pension funds and Real Estate Investment Trusts are willing to finance higher density developments and will accept lower cap rates than banks. The response to mixed use depends on the lender. Problems include incomplete studies, and few examples of successful TODs. Some developers believe secondary financial markets such as Fannie Mae are also problematic, but that is not necessarily true. Most builders in Oregon did not have the capacity to pull off large developments like Orenco. Three things are needed from the lender's perspective: a developer track record, a product track record, and a need in the market place. Light rail is viewed as doing nothing for retail.

Public help is needed to create TODs in order to control the land and development pattern. Another problem is no neo-traditional development has had successful retail, which makes developers and lenders hesitate to commit to such a project.

Developing a transit-oriented community is a difficult challenge. It has become trendy but is not always successful. The biggest problem is developing TODs in the suburbs. In most areas ridership is low compared to other forms of public transit and the cost is high. In many ways TODs are a 19<sup>th</sup> century solution to a 20<sup>th</sup> century problem. There are problems with too many conflicting codes and development objectives.

The objectives of planners, developers, and engineers are often at cross purposes. Some of the design elements of TODs are perceived to have advantages, but the actual advantage in practice is unclear. Things such as narrow streets and reduced parking. One of the main problems with light rail is being limited to a single route. People do not want to give up the mobility and flexibility of their cars. Light rail is also of almost no use to retail. Unless the product is light and easily carried, or consumed on site, most people will use their cars for shopping.

Some lenders are more willing to finance mixed-use because of higher property values. Banks are usually more conservative about financing. There not a particular problem with secondary capital markets.

One developer is usually not proficient at multiple development types. However, multiple developers complicate planning, phasing, financing, and management. Negotiations are more complex, and often require public/private partnerships. The construction complexity of higher density can eliminate economies of scale savings. Market timing is difficult because different development markets are at different phases. Markets will also change over the longer development period. There are often different lenders for each phase of development, and legal impediments to multiple closings.

Public financing is needed to offset the development disadvantages of mixed use. A better job needs to be done of extending a grid system in TODs. The connectivity elements in TODs are often more cosmetic than functional. Affordable new development is an oxymoron. The public sector is almost more at fault because of a lack of flexibility. People should not get hung up on the religion of light rail. Other forms of public transportation need to be addressed as well in TODs.

## **Architects/ Urban Designers**

Station areas were located in areas with the greatest TOD potential. Orenco was a big greenfield with major employers nearby. It was moved from the old Orenco neighborhood because of the 500-ft. buffer around the Toshiba property. Toshiba had planned to build a chipfab south of the light rail line.

The key players at Beaverton Creek were Washington County, Metro, Tri-Met, Greg Specht and US Bank/TCR.

Expected the development of true TODs and commitment from the cities. Many did not come through. No one entity was clearly in charge.

Tri-Met was the de facto project manager for the TODs. Appeared to be a conflict in goals between the real estate and operations (engineers) people at Tri-Met. Engineers took a purely simplistic view regarding station area planning. At Beaverton Creek, Tri-Met did not have a good relationship with the City of Beaverton. Tri-Met was like a bull in a china shop – not very tactful. The city had basically zero involvement in the Murray West master plan, apparently as a result of the relationship with Tri-Met.

Key players had conflicting goals. Greg Specht wanted to build as quickly as possible. Washington County was well-intentioned but perhaps not skilled. There was not enough control over site planning at Orenco, and not enough public sector control from Hillsboro. Density goals were not embraced by Hillsboro, even though the city did the station area plan. TOD code was too generic and clumsy, and Tri-Met's TOD handbook is too broad. FFA distilled it to one page.

Beaverton Creek has not achieved its potential. It has no network of streets and pedestrian connectivity could be better. It also needs a park. The biggest win at Beaverton Creek was moving the park & ride. Orenco has a better network of streets and open space. Orenco townhomes are overpriced. Beaverton Creek should not even have retail. It was located specifically to create a mixed-use TOD. It is not functional without the Tek Woods property being developed. Retail at Beaverton Creek was a concession by TCR to Metro and Tri-Met to activate the park & ride. TCR probably views it as one of the costs of doing business. Housing by Fairfield and Simpson at Orenco is pretty safe and typical. Originally the development was going to be the same south of Cornell. Issue with Cornell Road width was a problem. CMAQ grant was wasted. The key at Beaverton Creek was that Tri-Met had the opportunity to buy Tek Woods very cheaply, but did not act quickly enough (Fatal Flaw.) Could be possible legal issues with Tri-Met owning property. TCR used Riverplace as a prototype.

Keys: Do master plans early, buy the land, and put in the infrastructure quickly. The good will of private developers is important. Expertise at mixed-use development is needed but it may not be good to have one owner controlling all the land. Set block structures and parks early – don't be too cute – no odd shapes or sizes. Getting the framework in is the key. It is more expensive to do unique designs; it increases the soft costs. Density is not as important as the basic structure. Housing will change over time as will density. Stations and alignment have to be right in the first place. Regulations also need to be congruent with the TOD goals (they weren't at Beaverton Creek and Orenco). The parking ratio was a red herring. Local agencies should have held the line. Parking would not be an issue as long as it is designed properly. Spent 3 months discussing parking at Beaverton Creek and didn't accomplish much.

Moved to Orenco for the affordability/ value of what he could get for his money, and access to light rail. It is well planned, and has well designed housing units. Good access. It's a 1/2 mile walk. There is also a shuttle, and you can park in the park and ride lot as well

The retail is located in a good spot. It is between the station and the residential, people walk past it on their way to the station. Wouldn't make any changes. The development needs time to evolve. Right now there is not retail to population, but on the other hand there is not enough a large population to support retail center yet.

## **Business Owners/Representatives**

Felt that realtor made several claims about the Beaverton Creek area that have not come true. Claimed to have been shown brochures that projected a daytime population of 65,000 and a nighttime population of 105,000 within a 3-mile radius of the station area. Does not believe that either of these projections have come true, and furthermore believes that such claims were unrealistic

Also felt that little to no effort has been made by Tri-Met to advertise the park & ride lot, which he claims is rarely more than one-third full. Also feels that Tri-Met has erroneously chosen not to make a direct



connection from the park & ride lot to Murray Blvd. Owner believes that his business would be improved if Tri-Met had made these efforts.

Claims that Trammel Crow has hurt business by giving free food and coffee to its residents in LaSalle. "Who is going to come to my store to buy food and coffee when they are getting it for free?"

Overall the owner believes that light rail development has potential, but that the position of the land lords at LaSalle and the poor implementation of the development by Tri-Met and others have made it difficult if not impossible to succeed at Beaverton Creek.

Under use at the park & ride has hurt business. Believes that park & ride use could be increased with better advertisement by Tri-Met. Is in favor of light rail development on the whole, but does not believe that business can succeed at LaSalle given its current implementation.

#### General Observations

They really did a nice job—an upscale area. It doesn't make you think of mass transit or a weigh station for people. It's a destination stop, good for advertising—only a couple of blocks. I like the convenience—when it [Max] goes to airport this area will be made for residents.

Demographics. This area is right for what we wanted to do—can't buy this stuff at a grocery store. The type of merchants are not chains, with the exception of Starbucks. People are moving in and there is a lot of disposable income.

I'm a little impatient. Business is growing quickly with the number of customers, not heavy on the foot traffic. It's probably meeting but not beating my expectations. We've only been here 8 months. I am always looking for something better. It's time sensitive.

Most of the traffic is from residents in the area. I don't know how many people are coming from Portland. I haven't tried to do any marketing efforts.

I would not prefer to be in any other location. PacTrust talked with us. We looked at both Orenco and Tanasbourne. We are well positioned within the complex and within the area, (close to multi-family residential).

#### General Observations

Excellent concept. They thought of a lot of little things. I like the living and business idea. It has more than exceeded my expectations. People like to ride light rail—hop on it. The neighborhood is happening by itself. People are taking pride in the community. There is beautiful architecture, and the garages are in the back.

I would have thought of Orenco if it weren't for PacTrust. They approached us. They sold us on the idea. They didn't want a chain restaurant. We looked at the demographics.

Business is exceeding expectations. We are ahead of projections.

Patronage from light rail—it's difficult to say. I thought about buying tickets for everyone as a marketing scheme but didn't. Occasionally there will be people from my old neighborhood in NE Portland coming out on light rail. However, people say that it takes longer than they expected. It takes between 60-70 minutes.

The location is just right. I didn't want to be on Cornell Rd. I didn't want my customers to watch busy traffic go by. I wanted to accommodate outdoor seating in the summer time.

Nike was not really involved in the planning process at Beaverton Creek. Nike had previous opportunities to purchase Tek Woods, but had not pursued it. They needed more land to bank for future expansions. The company did not want to become landlocked by other development. Nike was not terribly concerned about security issues regarding the original Murray West TOD master plan. The company knows it can not realistically expect to isolate its campus in a growing suburban environment.

Believes Nike considers light rail a bonus for its employees. It runs a shuttle to the Beaverton Creek station from its campus and also provides incentives to use mass transit.

Thought Nike did not feel the Beaverton Creek/Murray West planning process needed its involvement. The company is too busy with other projects to become involved in a TOD planning process at any length. It is not willing or able to commit valuable employee time to such a process.